

**TECHNOLOGY AND PERFORMANCE OF BANKING SERVICES. A
CASE STUDY OF I AND M BANK GIKOMBA BRANCH**

SHEIKHA ABDALLAH MOHAMMED

**A RESEARCH PROJECT SUBMITTED TO THE SCHOOL OF MANAGEMENT
AND LEADERSHIP IN PARTIAL FULFILLMENT OF THE REQUIREMENT
FOR THE AWARD OF DEGREE OF BACHELOR OF COMMERCE OF THE
MANAGEMENT UNIVERSITY OF AFRICA**

JANUARY 2025

DECLARATION

This project is my original work and has not been presented for a degree in any other University

Signature..... Date

Sheikha Abdallah Mohammed

BCOM/27/00229/3/22

This project has been submitted for examination with my approval as University Supervisor

Signature..... Date

Dr. Samuel Thiong'o

The Management University of Africa

DEDICATION

I dedicate this project to my beloved family, whose unwavering support and encouragement have been the cornerstone of my journey. To my parents, who instilled in me the values of hard work and perseverance and to my siblings, who have been my constant companions and sources of inspiration. I am deeply grateful for your love, understanding and patience. Your belief in me has been my greatest motivation and I would not have come this far without your guidance and encouragement.

Thank you for being my foundation and my strength. This work is a testament to your love and to the sacrifices you have made for me.

ACKNOWLEDGMENT

I would like to express my deepest gratitude to all those who contributed to the completion of this project. First and foremost, I am profoundly thankful to my supervisor, Dr. Samuel Thiong'o, for his invaluable guidance, insightful feedback and unwavering support throughout this process. His mentorship has been instrumental in shaping this work.

I am also grateful to the lecturers at the Management University of Africa, whose teachings have greatly expanded my knowledge and inspired my academic journey. I would like to acknowledge my colleagues and fellow students at the university for their encouragement, collaboration and camaraderie. Their shared insights and perspectives enriched my understanding and motivated me to pursue excellence.

To everyone who has supported me in this endeavor, I extend my heartfelt appreciation. This project would not have been possible without each of you. Thank you for your contributions and belief in my work.

ABSTRACT

Using I&M Bank's Gikomba branch as a case study, this research set out to determine how technological developments have affected the efficiency of banking services. The particular goals were these: The goal is to measure how well financial services function in relation to the availability of ATMs. Find out how the rise of mobile banking has affected the efficiency of financial services. In order to assess how customer relationship management software boosts service quality. In order to find out what effect the incorporation of digital payment systems has on the overall effectiveness of banking. The purpose of this research was to shed light on how various aspects of the ever-changing digital world are influenced by technical advancements in the banking industry. In order to learn how well the Gikomba Branch of I and M Bank handled customer service, this study used a descriptive research strategy. The 73-person target audience included upper-level managers, middle managers, and entry-level employees. In order to include every single person in the population as a responder, a census sampling approach was used. In order to ensure clarity and simplicity of answer, data was gathered using standardized questionnaires that had closed-ended questions built on a 5-point Likert scale. Staff members of the research organization were prepared to help with the administration of the questionnaires. Excel served as a tool for processing and analyzing the collected data using descriptive statistics, particularly percentages and frequencies. By taking this tack, we were able to make sense of the data and see patterns that were important to our study. The findings were intended to shed light on the elements impacting the efficiency and happiness of banking customers as well as the sector's operational effectiveness. This study added to what is already known about banking performance research thanks to its thorough investigation of the subject, which was made possible by a combination of a well defined research design, a targeted population, and systematic data collecting and analytic methodologies. Key findings revealed that 78% of respondents frequently used ATMs, with 67% expressing satisfaction with their availability and performance, though operational issues and cash shortages were noted. Mobile banking showed strong adoption, with 73% conducting transactions and 75% frequently logging into the app, while 66% reported positive feedback on its efficiency. CRM tools were found to enhance customer retention (64%) and service customization (66%), despite some concerns about data reliability. Digital payment systems improved accessibility (73%) and compliance (70%), though occasional processing errors were identified. The study concluded that technological integration significantly enhanced banking service performance but highlighted areas requiring improvement, including ATM maintenance, mobile app usability, CRM optimization and digital payment processing. Major recommendations included regular maintenance and expansion of ATM services, enhanced mobile banking features, staff training on CRM tools and infrastructure improvements for digital payment systems. These measures aimed to ensure consistent reliability, increased customer satisfaction and sustained performance improvement at the bank.

TABLE OF CONTENTS

DECLARATION	ii
DEDICATION	iii
ACKNOWLEDGMENT	iv
ABSTRACT	v
TABLE OF CONTENTS	vi
LIST OF TABLES	viii
LIST OF FIGURES	ix
ACRONYMS AND ABBREVIATIONS	x
OPERATIONAL DEFINITION OF TERMS	xi
CHAPTER ONE	1
INTRODUCTION	1
1.0 Introduction	1
1.1 Background of the Study.....	1
1.2 Statement of the Problem	10
1.3 Objectives of the Study	12
1.4 Research questions	12
1.5 Significance of the Study	12
1.6 Scope of the Study	13
1.7 Chapter Summary.....	13
CHAPTER TWO	14
LITERATURE REVIEW	14
2.0 Introduction	14
2.1 Theoretical Literature Review.....	14
2.2 Empirical Literature Review	17
2.3 Summary and Research Gaps.....	24
2.4 Conceptual Framework	29
2.5 Operationalization of Variables	30
2.6 Chapter Summary.....	31
CHAPTER THREE	32
RESEARCH METHODOLOGY	32
3.0 Introduction	32

3.1 Research Design.....	32
3.2 Target Population	32
3.3 Sample and Sampling Technique	33
3.4 Instruments.....	34
3.5 Pilot Study.....	35
3.6 Data Collection Procedure	36
3.7 Data Analysis and Presentation.....	37
3.8 Ethical Considerations	38
3.9 Chapter Summary.....	39
CHAPTER FOUR.....	40
PRESENTATION, ANALYSIS AND INTERPRETATIONS OF FINDINGS	40
4.0 Introduction.....	40
4.1 Presentation of Research Findings	40
4.2 Limitations of the Study.....	81
4.3 Chapter Summary.....	81
CHAPTER FIVE	82
SUMMARY, CONCLUSIONS AND RECOMMENDATIONS	82
5.0 Introduction.....	82
5.1 Summary of Findings.....	82
5.1.1 Background Information.....	82
5.2 Conclusion	84
5.3 Recommendations	86
5.4 Suggestions for Further Study.....	88
REFERENCES.....	89
APPENDIX I	
QUESTIONNAIRE COVER LETTER	
APPENDIX II	
RESEARCH STUDY QUESTIONNAIRE	
PLAGIARISM REPORT	

LIST OF TABLES

Table 1: Summary and Research Gaps.....	24
Table 2: Operationalization of Variables.....	30
Table 3: Target Population	33
Table 4: Sample Size.....	34
Table 5: Response Rate	40
Table 6: Gender Distribution of the Respondents	42
Table 7: Age range of the Respondents.....	43
Table 8: Highest level of Education of the Respondents	44
Table 9: Department/Position of the Respondent.....	45
Table 10: Customers frequently use ATMs for their banking transactions	47
Table 11: The wait time for customers at ATMs is generally acceptable.....	49
Table 12: The ATMs are mostly operational and available for customer use	50
Table 13: ATMs are adequately stocked with cash to meet customer needs.....	51
Table 14: Customers express satisfaction with the ATM services provided	52
Table 15: Customers regularly conduct transactions through mobile banking	54
Table 16: Customers frequently log into mobile banking app	55
Table 17: Receive positive feedback from customers regarding mobile app.....	57
Table 18: Mobile banking app effectively reaches a broad customer base	58
Table 19: Transactions via mobile app are processed in a timely manner	59
Table 20: Customer Relationship Management tools enhance customer retention	61
Table 21: Customer issues are resolved quickly through our CRM systems.....	62
Table 22: Frequently interact with customers using CRM software.....	63
Table 23: Able to provide personalized service offers to customers.....	65
Table 24: The data in CRM system is accurate and reliable	66
Table 25: Digital payment transactions are processed efficiently at the bank	67
Table 26: Digital payment systems enhance customer accessibility to services.....	69
Table 27: Staff promote the adoption of digital payment services among customers.....	70
Table 28: Experience minimal errors when processing digital payments.....	71
Table 29: Digital payment systems comply with necessary security regulations	73
Table 30: Customers are satisfied with the services provided by our bank	74
Table 31: Transactions at the bank are conducted efficiently	76
Table 32: The speed of service delivery meets customer expectations.....	77
Table 33: Retain a high percentage of customers year over year.....	78
Table 34: Bank is experiencing growth in revenue	80

LIST OF FIGURES

Figure 1: Conceptual Framework	30
Figure 2: Response Rate	41
Figure 3: Gender Distribution of the Respondents	42
Figure 4: Age range of the Respondents	43
Figure 5: Highest level of Education of the Respondents.....	45
Figure 6: Department/Position of the Respondent.....	46
Figure 7: Customers frequently use ATMs for their banking transactions	48
Figure 8: The wait time for customers at ATMs is generally acceptable.....	49
Figure 9: The ATMs are mostly operational and available for customer use	50
Figure 10: ATMs are adequately stocked with cash to meet customer needs	51
Figure 11: Customers express satisfaction with the ATM services provided	53
Figure 12: Customers regularly conduct transactions through mobile banking	54
Figure 13: Customers frequently log into mobile banking app	56
Figure 14: Receive positive feedback from customers regarding mobile app.....	57
Figure 15: Mobile banking app effectively reaches a broad customer base	58
Figure 16: Transactions via mobile app are processed in a timely manner	59
Figure 17: Customer Relationship Management tools enhance customer retention	61
Figure 18: Customer issues are resolved quickly through our CRM systems	62
Figure 19: Frequently interact with customers using CRM software	64
Figure 20: Able to provide personalized service offers to customers	65
Figure 21: The data in CRM system is accurate and reliable	66
Figure 22: Digital payment transactions are processed efficiently at the bank	68
Figure 23: Digital payment systems enhance customer accessibility to services.....	69
Figure 24: Staff promote the adoption of digital payment services among customers....	70
Figure 25: Experience minimal errors when processing digital payments	72
Figure 26: Digital payment systems comply with necessary security regulations	73
Figure 27: Customers are satisfied with the services provided by our bank	75
Figure 28: Transactions at the bank are conducted efficiently	76
Figure 29: The speed of service delivery meets customer expectations	77
Figure 30: Retain a high percentage of customers year over year	79
Figure 31: Bank is experiencing growth in revenue	80

ACRONYMS AND ABBREVIATIONS

API	:	Application Programming Interface
ATM	:	Automated Teller Machine
CRM	:	Customer Relationship Management
E-Banking	:	Electronic Banking
ICT	:	Information and Communication Technology
KYC	:	Know Your Customer
M-Banking	:	Mobile Banking
POS	:	Point of Sale

OPERATIONAL DEFINITION OF TERMS

Automated Teller Machines (ATMs): Self-service banking terminals that allow customers to perform various financial transactions, such as cash withdrawals, balance inquiries and fund transfers, without the need for a bank teller.

Banking Service Performance: A measure of how effectively banking services meet customer needs and expectations, often evaluated through metrics such as transaction speed, service accessibility, customer satisfaction and operational efficiency.

Customer Relationship Management (CRM) Software: A digital platform used by banks to manage interactions with current and potential customers, aiming to improve customer service, increase satisfaction and enhance customer retention through personalized communication and service offerings.

Digital Payment Systems: Electronic methods for transferring money and making payments, such as online banking, mobile payments and point-of-sale (POS) systems. These systems facilitate cashless transactions and enhance the efficiency of payment processes.

Mobile Banking: A service offered by banks that allows users to manage their accounts, send and receive money, and pay bills all from the convenience of their mobile devices.

Technology Adoption: The process through which a bank integrates new technological tools and systems into its operations, aiming to improve service quality, reduce costs and increase customer convenience.

CHAPTER ONE

INTRODUCTION

1.0 Introduction

An extensive synopsis of the research on the efficiency of banking services at the I&M Bank Gikomba Branch is given in this chapter. It starts with the study's context and issue statement, then moves on to well-defined goals and questions for further investigation. The chapter also discusses the study's importance. At last, the boundaries are set.

1.1 Background of the Study

The banking industry has undergone a significant transformation in recent years, primarily due to the integration of advanced technology, which is reshaping how banks deliver their services and interact with customers (Buchak & Levy, 2023). The rapid adoption of digital tools such as automated teller machines (ATMs), mobile banking and digital payment platforms has allowed banks to improve service delivery, enhance customer convenience and streamline operational efficiencies (Buchak & Levy, 2023). The adoption of Customer Relationship Management (CRM) systems enables banks to leverage customer data to deliver personalized services, thereby improving customer satisfaction and loyalty (Rapp & Ogden, 2022).

Globally, the banking sector continues to embrace digital innovations, with experts noting that artificial intelligence (AI) and cloud technologies are playing pivotal roles in transforming banking services. In recent years, banks worldwide have invested in AI-powered chatbots and predictive analytics to offer personalized experiences, while automation tools have streamlined back-office operations, thus driven efficiency and reducing errors (Accenture, 2024). Furthermore, the emergence of digital payment solutions, such as embedded finance, open banking and contactless payments, has changed how consumers and businesses handle financial transactions. This shift is part of a larger trend in digital transformation, which experts believe will continue to shape the future of banking by promoting seamless, convenient and customer-centric services (FinTech Magazine, 2023).

The African banking sector has experienced significant shifts due to technological advancements, with digital transformation increasingly viewed as essential to achieving financial inclusion, meeting customer expectations and addressing inefficiencies. In recent years, the demand for mobile banking and digital payment systems has soared, largely driven by the rise of smartphone usage across the continent, which now accounts for approximately 75% of all online traffic in Africa. This mobile-driven accessibility has been particularly impactful in countries like Kenya, where mobile banking services such as M-Pesa have transformed financial inclusion by allowing previously unbanked individuals to access and manage financial services (African Business, 2023).

While there is notable growth in digital adoption, challenges persist. High data costs and the expense of smartphones remain barriers, especially for lower-income individuals. Nonetheless, various African countries have witnessed increased banking penetration, with mobile transactions forming a substantial share of their GDP, highlighting the impact of financial technology (fintech) on enhancing accessibility. For example, in Ghana and Nigeria, financial technology services continue to gain traction, addressing gaps left by traditional banking systems and creating tailored solutions to serve unbanked populations (Lockhat, 2023).

The shift towards digital banking is also underpinned by regulatory frameworks that encourage innovation, along with advancements in data analytics. These tools enable banks to better understand customer behaviors and preferences, helping to personalize services and improve customer satisfaction. Despite the progress, there remains a need for significant investment in infrastructure and digital literacy to ensure that digital banking solutions are both effective and accessible to a broader African demographic (Carnegie Endowment for International Peace, 2024).

Digital finance innovations, including mobile banking, ATMs, and digital payments, have greatly transformed banking services in Kenya, boosting financial inclusion and improving service efficiency. Millions of formerly unbanked people have gained access to banking services thanks to the proliferation of mobile money platforms like M-Pesa, which has increased the financial inclusion rate in the nation. Thanks to digital and mobile financial

instruments that made transactions cheaper and offered easy, 24/7 banking alternatives, 83.7% of adults in Kenya had access to formal financial services by 2021, according to the FinAccess report (KIPPRA, 2023; CBK, 2022).

Moreover, Kenyan commercial banks have increasingly integrated fintech solutions to streamline operations and broaden their reach. Mobile and internet banking have become essential in providing flexible and affordable banking services, allowing clients to bypass traditional barriers such as limited branch networks, especially in rural regions. As financial technologies continue to advance, they present opportunities to address market inefficiencies, including high operational costs and gaps in service delivery, ultimately enhancing financial access across socio-economic groups in Kenya (Nyandika, 2021; Rosengard, 2019).

However, challenges remain, such as regulatory compliance and ensuring equitable access. Regulatory bodies like the Central Bank of Kenya (CBK) have made strides in governing digital credit providers to protect consumers, but the need for a balanced regulatory approach is still essential to support innovation while maintaining security and trust within Kenya's digital banking landscape (CBK, 2022; KIPPRA, 2023).

1.1.1 Automated Teller Machines

Automated Teller Machines (ATMs) have fundamentally altered banking services, playing a significant role in enhancing service efficiency by reducing in-person visits and streamlining transactions for customers. The availability and accessibility of ATMs can contribute significantly to the performance of banking institutions by facilitating self-service banking and enabling extended banking hours beyond traditional working times (Kapadia & Vaghela, 2019). This not only saves time but also contributes to customer satisfaction and retention, which are critical metrics in banking performance. Additionally, advancements in ATM technology, such as biometric verification and touchless transactions, further support bank efficiency by securing transactions and reducing the reliance on branch personnel (The Financial Brand, 2020).

Globally, the role of ATMs has evolved beyond mere cash dispensing to becoming multifunctional banking machines that can handle transactions such as deposits, payments and balance inquiries, thereby reducing the demand on branch resources (Kisters, 2021). In Europe and North America, the integration of digital features like mobile banking apps with ATMs has enhanced user experience by allowing pre-staged transactions, improving speed and security (Embry, 2020). With these capabilities, banks can manage operational costs and improve financial performance, as high-performing ATMs allow customers to accomplish tasks independently, thus minimizing congestion in branches and lowering overhead costs (Phillips, 2020).

In Africa, ATM accessibility remains critical to banking performance, particularly in rural areas where branches are scarce. Studies highlight that in countries such as Rwanda, ATMs are crucial for banking inclusivity, allowing banks to reach underserved populations and improve financial accessibility (ResearchGate, 2021). Additionally, the widespread adoption of ATMs in various regions across Africa has driven growth in mobile and electronic banking. These developments are essential for enhancing bank profitability, as they minimize the reliance on physical branches and help banks to serve a larger customer base without significant increases in operational costs (Harelimana, 2020).

In Kenya, ATMs have been instrumental in boosting banking performance by enhancing customer convenience and reducing waiting times at branches. Studies suggest that Kenyan banks that invest in ATMs tend to experience higher customer satisfaction rates due to the 24/7 availability of banking services (IOSR, 2021). Furthermore, ATMs in Kenya increasingly support diverse transactions, such as bill payments and funds transfers, which align with the goals of financial inclusion and help banks to remain competitive by meeting the diverse needs of their customers (Okiro & Ndungu, 2020). This evolution reflects the broader trend in the Kenyan banking sector towards electronic and mobile banking, underscoring the importance of ATMs in sustaining the performance of financial institutions.

1.1.2 Mobile Banking Adoption

Mobile banking has significantly reshaped banking operations, providing a highly accessible and efficient means for customers to interact with banking services. Since its early development, mobile banking has evolved from a limited, high-tech niche into a widely accessible service for a broad demographic, enhancing banking performance and customer satisfaction globally. The rapid adoption of mobile banking is partly driven by the need for banks to optimize operations and reduce transaction costs while providing real-time financial services (Schulze Schwering et al., 2022). Additionally, consumer trust in mobile banking systems has grown, as these platforms now prioritize security and ease of use, thus enhancing overall customer engagement and loyalty (Sampat & Sabat, 2022).

From a global perspective, mobile banking adoption has been instrumental in advancing the performance of financial institutions, especially in highly competitive markets. In countries such as the United States and across Europe, mobile banking has become a cornerstone of banking strategy, offering essential digital services to enhance customer satisfaction and loyalty. This technological shift has not only improved convenience but also created new revenue streams for banks, with mobile banking apps providing a seamless platform for customers to conduct transactions, check balances and engage in financial planning (Karim et al., 2021). Additionally, research underscores that mobile banking adoption can increase a bank's operational efficiency and broaden its reach to underserved customer segments, helping to drive financial inclusion (Xu et al., 2021).

In Africa, mobile banking has been transformative, primarily due to the continent's high levels of financial exclusion and limited access to traditional banking infrastructure. Countries like Kenya and Nigeria have seen mobile banking as a critical tool for financial inclusion, with mobile platforms extending banking services to rural areas where physical branches are often absent (Ghazali et al., 2022). Mobile banking in Africa has been linked to improved bank performance as it lowers transaction costs, broadens customer access and drives revenue by increasing transaction volumes. Mobile technology has also facilitated the development of tailored banking solutions that meet the unique needs of African consumers, enhancing banks' competitiveness in the region (Kiugi, 2018).

In Kenya, the adoption of mobile banking has had a substantial impact on the performance of financial institutions, with mobile money services like M-Pesa revolutionizing banking for millions. Kenyan banks that have adopted mobile banking services report increased customer retention and satisfaction due to the convenience and affordability these services offer. Moreover, mobile banking has played a critical role in enabling small and medium-sized enterprises (SMEs) to access financial services, furthering Kenya's economic development and financial inclusion goals (Ombado, 2009). Studies also reveal that mobile banking adoption in Kenya has reduced operational costs for banks and improved their profit margins by driving higher transaction volumes (Muteke, 2015).

1.1.3 Customer Relationship Management (CRM) Software

Customer relationship management (CRM) systems have emerged as vital tools for enhancing banking performance by improving customer service quality, operational efficiency and customer retention. The core idea of CRM involves utilizing data to understand customer needs and to personalize interactions across multiple channels, creating a seamless customer experience. This aligns with the need for banks to foster long-term customer relationships by providing better service, which ultimately drives business outcomes (ABA Banking Journal, 2024). Recent studies highlight how CRM systems, particularly when integrated with advanced analytics and AI, provide insights that enable banks to optimize their services and build stronger customer relationships, directly impacting overall performance (Theseus, 2024).

Globally, CRM technology has seen widespread adoption across financial institutions, particularly in developed markets where competition is high. In the United States, for instance, CRM systems allow banks to track customer interactions, automate marketing efforts and provide personalized experiences. These capabilities have become essential for differentiating services, reducing operational costs and increasing customer loyalty. Financial institutions in Europe and North America invest heavily in CRM solutions to enhance customer segmentation, allowing for tailored marketing and product offerings that align with diverse client needs (ABA Banking Journal, 2024). Additionally, CRM systems with AI capabilities are increasingly leveraged to provide real-time analytics, allowing

banks to make data-driven decisions that improve profitability and customer satisfaction (Theseus, 2024).

In Africa, CRM adoption in banking has steadily grown, albeit at a slower pace compared to global counterparts. African banks face unique challenges, including limited resources and technological infrastructure, which can hinder full CRM utilization. However, studies indicate that CRM systems are becoming more integral as banks aim to increase customer retention and loyalty by improving service quality (ResearchGate, 2023). For example, CRM systems in African banks often focus on basic functionalities such as customer data management and service personalization, which help mitigate issues related to customer churn and satisfaction. The integration of CRM technologies is viewed as a strategy to enhance competitive positioning and operational performance within the African banking sector (SpringerLink, 2023).

In Kenya, CRM adoption in banks has gained traction as institutions recognize the strategic role it plays in enhancing customer service and retaining clients in a competitive market. Kenyan banks, particularly in urban areas, have implemented CRM systems to streamline customer service operations and improve communication. This is especially relevant given the rapidly growing customer base in Kenya's banking sector, necessitating efficient service delivery to maintain customer satisfaction (ResearchGate, 2023). For example, Kenyan banks use CRM software to personalize customer interactions and to improve response times, thus elevating customer experience and boosting brand loyalty. Moreover, by utilizing CRM analytics, these banks can identify customer needs more accurately, enabling more effective cross-selling of financial products (Theseus, 2024).

1.1.4 Digital Payment Systems Integration.

The integration of digital payment systems in the banking sector has become a pivotal area of focus due to its significant influence on the efficiency and performance of banking services. Digital payment systems encompass various technologies, including mobile payments, internet banking and card-based transactions, that facilitate faster, more secure and convenient transactions. This integration is driven by both customer demand for more accessible financial services and the banking industry's need to maintain a competitive edge

through operational efficiency. Studies indicate that digital payments enhance transaction speeds and reduce the costs associated with cash handling and manual processes, leading to improved overall service delivery (McKinsey, 2024; BIS, 2021). By minimizing reliance on cash, banks can reduce operating expenses, promote financial inclusion and offer customers a seamless banking experience.

The COVID-19 epidemic hastened the transition away from cash and toward digital payment systems throughout the world. For example, according to McKinsey (2024), yearly consumer-to-business transactions in the US and EU have reached about \$10 trillion, thanks to the widespread use of digital wallets. An rising number of customers are depending on mobile wallets for both in-store and online purchases. The ease and safety of digital payments have emerged as key factors in their widespread use, and experts agree that this change in consumer behavior has encouraged further investment in digital payment infrastructure throughout the globe (globe Bank, 2022). With the proliferation of digital wallets and mobile money platforms, banking services are now within reach of consumers from all walks of life and all corners of the globe.

Digital payment systems have been a game-changer throughout Africa, particularly in areas with weak or nonexistent conventional banking infrastructure. Especially for marginalized communities, mobile money systems like M-Pesa in Kenya and MTN Mobile Money in a number of African nations have increased access to formal financial services. A key indicator of financial inclusion and economic resilience, mobile banking use has been rising rapidly in African nations. According to a World Bank survey conducted in 2021, digital payment platforms had a significant influence on financial inclusion. Specifically, in low- and middle-income nations, 40% of individuals used them for the first time during the epidemic (World Bank, 2021). The unique position of the continent in using digital payments to enhance the performance and reach of financial services is highlighted by this quick adoption.

Kenya stands out as a leader in digital payment adoption within Africa, largely due to the widespread success of M-Pesa, which has provided millions of Kenyans with access to financial services. The integration of digital payment systems has greatly enhanced

banking performance in Kenya by increasing transaction volumes, reducing operational costs and boosting overall efficiency. A study by the Central Bank of Kenya indicated that mobile money services accounted for a significant portion of financial transactions, reducing dependency on cash and expanding access to financial services in rural areas (CBK, 2021). Furthermore, the digital payment landscape in Kenya has encouraged innovation within the banking sector, as banks have adopted mobile and internet banking platforms to stay competitive in a digital-first market (Kenya Bankers Association, 2023).

1.1.5 Performance of Banking Services

The efficiency and effectiveness of banking services are pivotal in fostering economic growth, particularly as they enhance accessibility, speed and reliability for customers. Globally, banks are under pressure to improve service performance through advanced technological integrations like artificial intelligence (AI), cloud computing and machine learning, which facilitate risk management and improve the customer experience (Accenture, 2024). The integration of these technologies in banking has become essential for handling complex demands and meeting regulatory requirements, which have tightened in recent years to ensure better service and lower operational risks (McKinsey, 2024).

In Africa, the banking sector has shown strong growth, driven by increased mobile and digital banking adoption. Mobile banking services, such as those supported by mobile money platforms, have substantially increased access to financial services, particularly in regions with limited physical banking infrastructure. This expansion is seen as crucial for enhancing performance metrics within banks, as digital adoption allows for higher transaction volumes and customer engagement at reduced operational costs (Deloitte, 2022). However, African banks also face unique challenges, including cybersecurity risks and the need for continuous investment in digital infrastructure to support scaling, which may otherwise hinder performance improvements (PWC, 2021).

In Kenya, the performance of banking services has been significantly influenced by mobile money innovations, particularly with M-Pesa, which has positioned the country as a leader in mobile banking globally. Kenyan banks have embraced digital solutions like mobile and online banking to boost service efficiency, which has subsequently driven financial

inclusion and economic participation. However, to sustain this growth, Kenyan banks must address concerns such as transaction security, regulatory compliance and technological scalability (Central Bank of Kenya, 2023). The Central Bank's regulatory frameworks aim to foster a stable banking environment while promoting technological adoption for better service delivery. This regulatory support is critical, as it enables Kenyan banks to respond to evolving customer needs effectively.

1.1.6 I AND M Bank and Technology Adoption

The case study for this research focused on I&M Bank's Gikomba branch in Kenya, examining a targeted population that includes the bank's employees, who are directly affected by technological advancements in banking. Understanding this target group was essential because customers' needs and preferences are central to the success of digital banking initiatives and employees' proficiency in using digital tools impacts service delivery quality (Wachira & Ondigo, 2020). In Kenya, the adoption of mobile banking, digital payment systems and customer relationship management tools is crucial for addressing customer demands and enhancing competitive performance among banks. This trend is especially important at branches like Gikomba, where access to banking services through technology impacts customer satisfaction and loyalty, which in turn influences the bank's performance (Wachira & Ondigo, 2020).

Kenya's financial services landscape has seen significant changes as digital banking has gained traction among customers and businesses alike. For instance, studies show that banks with a greater focus on digital channels tend to perform better in terms of customer retention and operational efficiency, a factor particularly notable within Kenya's competitive banking sector (Central Bank of Kenya, 2021; Chege et al., 2021). At the Gikomba branch, understanding the specific customer base often characterized by diverse economic activities provides insights into how digital solutions like mobile banking and ATMs can meet specific client needs more effectively.

1.2 Statement of the Problem

This study explored digital transformation in Kenya's banking sector, focusing on barriers to digital banking performance and their impact on efficiency, accessibility, and customer

satisfaction. Addressing these challenges was identified as crucial for enhancing financial inclusion and developing resilient, secure digital financial services (Chebii et al., 2024; Central Bank of Kenya, 2022).

The study examined the digital transformation within Kenya's banking sector, emphasizing the barriers that affected digital banking performance. It highlighted how these challenges impacted efficiency, accessibility, and customer satisfaction, ultimately influencing financial inclusion and economic growth. Understanding these dynamics was essential for developing secure and resilient digital financial services catering to customer needs, particularly in underbanked regions. By addressing issues such as cybersecurity risks and infrastructure limitations, the research aimed to contribute to a more effective digital banking framework in Kenya (Chebii et al., 2024; Central Bank of Kenya, 2022).

Recent studies highlighted the effectiveness of Open Banking and technology-driven innovations in enhancing financial inclusion and customer experiences in Kenya's digital banking sector. Open Banking enabled secure data sharing, facilitating personalized services and increasing access for underserved populations (Dinga, 2021). Additionally, digital platforms improved transaction speed and outreach to unbanked communities (Aduda & King'oo, 2020). However, gaps remained, particularly concerning infrastructure reliability and data protection, as frequent system failures and downtimes negatively impacted customer satisfaction and financial performance. Addressing these issues was deemed crucial for advancing Kenya's digital banking landscape.

The study proposed solutions focused on enhancing digital banking performance through a combination of qualitative and exploratory techniques. By conducting in-depth interviews and focus groups with key stakeholders, including bank employees, customers, and regulatory officials, the research gained a comprehensive understanding of the current digital banking landscape in Kenya. Qualitative analysis identified underlying challenges and opportunities in areas such as service accessibility, system reliability, and customer satisfaction. The study used these insights to suggest practical improvements and policy recommendations for fostering a more resilient digital banking infrastructure in Kenya.

1.3 Objectives of the Study

The general objective of this study was to investigate technology and performance of banking services. A case study of I AND M bank Gikomba branch.

1.3.1 Specific Objectives

- i. To assess the effect of automated teller machines (ATMS) availability on performance of banking services.
- ii. To determine the effect of mobile banking adoption on performance of banking services.
- iii. To evaluate the effect of customer relationship management (CRM) software on performance of banking services.
- iv. To examine the effect of digital payment systems integration on performance of banking services.

1.4 Research questions

- i. What is the effect of the availability of Automated Teller Machines (ATMs) on the performance of banking services?
- ii. How does the adoption of mobile banking influence the performance of banking services?
- iii. In what ways does the implementation of Customer Relationship Management (CRM) software affect the performance of banking services?
- iv. What effects does the integration of digital payment systems have on the performance of banking services?

1.5 Significance of the Study

I&M Bank Gikomba Branch consumers and stakeholders will benefit greatly from this research since it will show how digital payment connectors, customer relationship management systems, ATMs, and mobile banking all work together to make banking more convenient and efficient. Customers' financial literacy and happiness may be enhanced by gaining a greater grasp of these implications, which in turn help them better navigate the banking market.

If Kenyan lawmakers and regulatory agencies are serious about improving the country's financial services industry, they will need to consult this study's findings. The research will help shape policies and laws that encourage financial inclusion and safety by determining the most important factors influencing banking performance in relation to technology adoption. These findings may be used by policymakers to create regulations that encourage digital innovation while safeguarding consumers and maintaining high-quality services.

The results of this research will add to what is already known about the relationship between technological adoption and the efficiency of Kenyan banks. It will provide the groundwork for future studies on the effects of digital banking by filling in the gaps in the existing knowledge. Furthermore, the results may be used by scholars to delve further into the correlation between technology progress and banking efficiency in various settings, enhancing the scholarly conversation around banking and finance.

1.6 Scope of the Study

The effect of technology on the efficiency of financial services provided by the Gikomba Branch of I&M Bank was the primary subject of this research. From November 2024 until January 2025, researchers followed a predetermined schedule. The results were guaranteed to be relevant in a fast expanding digital banking environment throughout this period, which allowed for proper data gathering and analysis. Participating in the research were 73 employees from the I&M Bank Gikomba Branch.

1.7 Chapter Summary

An extensive synopsis of the research on the efficiency of banking services at the I&M Bank Gikomba Branch is given in this chapter. It started with the study's context, then the issue description, and last, the study's goals and research questions. The chapter also touched on the importance of the research. At long last, the boundaries were drawn.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

Key ideas and research on automated teller machines (ATMs), mobile banking, customer relationship management (CRM), and digital payment systems are covered in this chapter's thorough literature analysis on the influence of technology on banking performance. With its conceptual framework and operationalized variables, it lays the groundwork for future study into the use of technology in financial services and exposes major gaps in the existing literature.

2.1 Theoretical Literature Review

A theoretical literature review, as stated by Creswell (2014), is meant to methodically examine and combine preexisting ideas and models that are pertinent to the subject of study. By delving into previously established frameworks and ideas in the literature, it lays the groundwork for comprehending the occurrences under investigation. In this research, the Gikomba Branch of I&M Bank was analyzed systematically using three theories: the Technology Acceptance Model (TAM), the Service Quality Model (SERVQUAL), and the Unified Theory of Acceptance and Use of Technology (UTAUT). The study's goals and the elements impacting banking sector performance might be better understood with the use of these theories, which offered a systematic way to examine the effects of technology on banking services.

2.1.1 Technology Acceptance Model (TAM)

Fred Davis laid the groundwork for our current knowledge of user adoption of technology with the 1989 release of the Technology adoption Model (TAM). Users' intentions to embrace and employ new technologies are substantially influenced by their perceptions of how easy they are to use and how valuable the technology is (Davis, 1989). Customers are more inclined to adopt technology when they see it as advantageous and easy to use, according to several studies that have confirmed the importance of TAM in different settings, especially in the banking and financial services industry (Lai, 2017; Venkatesh et al., 2016).

When it comes to the study's aims, TAM offers a firm theoretical grounding. To begin with, it emphasizes the positive impact that ATM availability has on banking performance via enhanced consumer access and transaction efficiency. Muro and Oduro (2020) state that customers are more satisfied when ATMs are easy to use, which is in line with the goal of evaluating ATM availability. In a similar vein, Chawla and Joshi (2022) shown that consumers' good impressions of the mobile banking app's usability and utility greatly impact the app's adoption.

When trying to figure out how CRM software affects banking services, TAM is also quite important. According to Khan et al. (2021), the model's claim that perceived utility promotes technology adoption is reinforced by effective CRM systems, which boost user experience and service delivery. In line with the goal of assessing their impact on banking performance, the model also highlights the significance of customers' views in digital payment system integration. Customer engagement with digital payment systems is positively correlated with their perceived ease of use and benefits, according to research by Alalwan et al. (2019). This, in turn, improves banking performance.

This research is grounded on the Technology Acceptance Model, which sheds light on how factors like ATM availability, mobile banking uptake, and CRM software deployment affect the performance of banking services based on judgments of ease of use and utility.

2.1.2 The Service Quality Model (SERVQUAL)

A. Parasuraman, Valarie Zeithaml, and Leonard Berry established the Service Quality Model (SERVQUAL) in the late 80s to measure the level of satisfaction and quality of service provided to customers. Customer perceptions of service excellence are impacted by five characteristics of service quality identified by this model: tangibles, dependability, responsiveness, assurance, and empathy (Parasuraman et al., 1988). The capacity of SERVQUAL to evaluate the effects of Customer Relationship Management (CRM) software on the efficiency of banking services, particularly in terms of improving interactions with and satisfaction from customers, makes it relevant to this research.

The use of customer relationship management software has a substantial impact on the quality of service and the level of pleasure felt by customers of financial institutions, according to studies. For example, according to Ranjan and Prasad (2016), a better customer data management is the result of an efficient CRM system, which in turn leads to more tailored services and an improved customer experience. The model's focus on empathy and responsiveness as key components is in line with the goal of assessing the impact of CRM software on the performance of banking services. Wu et al. (2021) also discovered that banks with great customer relationship management systems are more likely to have loyal customers and get good reviews for their service.

The importance of physical objects in providing services is further highlighted by the SERVQUAL paradigm. What this means in the context of customer relationship management is that the tangible aspects of banking services, such helpful staff encounters and intuitive user interfaces, are important. Customer relationship management (CRM) deployments produce measurable gains, which in turn improves service quality perceptions (Kumari and Reinartz, 2019). Customers are more likely to interact favorably with the bank and contribute to higher performance results when they perceive high-quality service provided by CRM, according to the model's pillars.

A strong theoretical basis for comprehending the impact of customer relationship management software on the performance of financial services is provided by the Service Quality Model. This theory enables a thorough examination of how customer relationship management systems may improve customer experiences and satisfaction in the banking industry by concentrating on the aspects of service quality.

2.1.3 The Unified Theory of Acceptance and Use of Technology (UTAUT)

Venkatesh et al. (2003) created the Unified Theory of Acceptance and Use of Technology (UTAUT) to explain user intents and actions around technology adoption. UTAUT combines features from eight existing models of technology acceptance. This theory highlights four important concepts that impact people's intents to utilize new technologies: performance expectation, effort expectancy, social influence, and enabling factors. Because

of its ability to examine the effects of digital payment system integration on banking service performance, UTAUT is relevant to this research.

One of the main components of UTAUT, performance expectations, is crucial to the success of digital payment systems, according to studies. As an example, research by Alalwan et al. (2020) shows that digital payment systems improve banking performance because clients are more inclined to utilize them when they think they improve their banking experience. When considering the potential integration of these technologies into financial services, effort expectancy—the perceived ease of use of the technology—is also critical. Mohd Suki (2020) asserts that banks' performance is improved when clients see digital payment methods as less complicated, leading to increased adoption rates.

The acceptance of digital payment methods is also greatly affected by societal factors. Customers are more inclined to use these solutions if they see that their friends and relatives are doing so (Nadja et al., 2021). In financial settings, where word-of-mouth and trust play a significant role in shaping technology adoption, this social dynamic takes on further significance. Additionally, the effective incorporation of digital payment systems is dictated by enabling circumstances, which include the availability of essential resources and infrastructure. According to Lee et al. (2021), banks that provide thorough assistance and easy-to-use interfaces for digital payments see a significant boost in service performance.

Ultimately, the integration of digital payment systems into banking service performance may be better understood with the help of the Unified Theory of Acceptance and Use of Technology. This theory permits a detailed investigation of the elements that drive consumer adoption and happiness in the banking industry by focusing on constructs like performance expectation, effort expectancy, social impact, and enabling circumstances.

2.2 Empirical Literature Review

Existing research papers that provide data-driven evidence on a given issue are systematically examined in the empirical literature review. Finding patterns, discrepancies, and holes in our present understanding requires this procedure (Kothari, 2020). Researchers

may evaluate theoretical frameworks, learn about the efficacy of different approaches, and choose where to take their study in the future by examining empirical studies (Ranjan & Prasad, 2021). Both the theory and practice of evidence-based decision-making are advanced by empirical reviews, which improve our comprehension of complicated topics.

2.2.1 Automated Teller Machines (ATMs) Availability and Performance of Banking Services

Ndlovu and Goh (2021) looked studied how the presence of ATMs affected the efficiency of banks in South Africa. Researchers used a mixed-methods strategy, gathering quantitative data from questionnaires sent to clients of different banks and supplementing it with qualitative interviews with bank officials. Greater accessibility to ATMs improved service delivery and efficiency, as their results showed a favorable association between customer happiness and the availability of these machines, along with a rise in transaction volume. The study did find a gap in our understanding of how customers' tech literacy impacts their ATM usage, so we need more studies to fill it. We need to know how customers' tech literacy impacts their banking behavior and how effective ATMs are at improving banking performance as a whole.

The impact of automated teller machines on the quality of banking services in Nigeria was the subject of research by Ojo and Adetunji (2020). Researchers used a quantitative approach, surveying bank clients in Abuja and Lagos using pre-designed questions. According to the findings, banks' performance indicators were boosted by the ease of ATMs, which greatly cut transaction time and enhanced the entire client experience. Despite these benefits, the research showed that there is still a lack of knowledge about the security risks of ATM use, which may lower their efficacy and damage consumer confidence. The authors argued that in order to fully comprehend the effect of ATMs on banking performance in Nigeria, future studies should look at these security concerns.

The impact of ATM availability on customer satisfaction and banking performance was the subject of a research carried out in Nairobi by Karanja and Njiru (2022). Using a quantitative technique, the researchers sent out questionnaires to 300 clients from different banks. They found that customers were more happier, had shorter wait times, and had more

efficient transactions when there were more ATMs available. Nevertheless, there is still a lack of knowledge about the impact of age and wealth on customers' interactions with ATMs, according to the research. Further study into the impact of these demographic characteristics on ATM service consumption might help banks better meet the demands of their broad clientele, according to the authors.

Mwangi and Muriuki (2023) conducted research at Mombasa banks to see if there was a correlation between the ease of using ATMs and the satisfaction of customers. Researchers used a mixed-methods strategy, gathering quantitative data from 200 bank clients via questionnaires and supplementing it with qualitative interviews with bank personnel. They found that customer retention and service quality ratings were greater for institutions with more ATMs. However, a gap about the effect of technical problems on ATM performance, such as system outages, was pointed up by the research. Important steps toward making ATM services more dependable for financial institutions should be taken, according to the authors, including studying the impact on consumer trust and use patterns of such failures.

2.2.2 Mobile Banking Adoption and Performance of Banking Services

The effect of mobile banking on the efficiency of Ghanaian banks was the subject of research by Agyekum and Morsah (2020). Researchers used a quantitative study strategy, surveying 400 bank clients from different banks using pre-designed questions. Customers loved the quickness and ease of mobile banking, which led to higher operational efficiency and customer happiness, according to their research. Nevertheless, the research highlighted a lack of comprehension of how trust and security concerns affect the use of mobile banking. Although the study emphasized the benefits of mobile banking, it failed to discuss how prospective users could be discouraged from fully using these services due to perceived security threats. To further understand the factors preventing mobile banking from being widely used, the authors recommended that future studies investigate how customers perceive the security of mobile banking.

Researchers Adeyemi and Adesanya (2021) looked at how mobile banking affected bank efficiency in Nigeria. Researchers in Lagos polled 250 bank clients via interviews and questionnaires as part of a mixed-methods study. Their findings demonstrated that mobile

banking had a favorable effect on banking performance, as it increased transaction volumes and client retention rates significantly. The research did find one major hole, however, and that is in the technical framework that mobile banking services rely on. In particular, it highlighted the fact that problems with device compatibility and slow internet might impede the successful deployment of mobile banking solutions. The authors hoped that further research into the ways that Nigeria's banking system may benefit from better technical infrastructure to support mobile banking would lead to better results.

Among young professionals in Nairobi, Njoroge and Mwangi (2022) investigated how the use of mobile banking affected the efficiency of financial services. The researchers used a quantitative approach, surveying 300 professionals from different fields using pre-designed questions. The findings demonstrated a robust relationship between the use of mobile banking and improvements in banking efficiency and customer satisfaction. Improvements in transaction speed and accessibility were noted by respondents, which had a favorable impact on their banking activity. A gap in our understanding of the demographic characteristics impacting mobile banking adoption was highlighted by the research. The study's findings might pave the way for more personalized banking services if we can learn how different age groups and income brackets use mobile banking. There is a need for further study to fill this gap and determine how demographic factors impact the efficacy of mobile banking solutions.

Ochieng and Wamalwa (2023) examined the impact of mobile banking on the quality of service provided by local banks in Kisumu. The researchers used a mixed-methods strategy, interviewing bank employees and surveying 250 clients. The results showed that mobile banking greatly improved banks' overall performance by boosting client loyalty and decreasing operating expenses. Although there were some good results, the research did find that bank staff still need more training on how to use mobile banking technologies. This might reduce the efficiency of their services. Also, there are some blanks in the study when it comes to the problems that clients have with mobile banking, such as distrust in online transactions and technological issues. The authors stressed the need of studying how to

better educate and assist customers in order to increase the use and efficiency of mobile banking.

2.2.3 Customer Relationship Management (CRM) Software and Performance of Banking Services

Researched in South Africa by Nkosi and De Villiers (2021), the authors looked at how retail banks' performance was affected by CRM software. They used a mixed-methods strategy, polling 150 bank workers and interviewing five separate banks' management. The findings showed that the banks' total performance measures were affected by customer satisfaction and retention rates, which were positively impacted by successful CRM systems. Nevertheless, there is a notable lack of knowledge about the optimization of CRM methods for distinct financial services, according to the report. It brought to light the fact that even though a lot of banks had CRM software, they weren't making the most of it, thus they ended up with less-than-ideal results. The study's authors advocate for further research into which customer relationship management features have the most impact on financial institutions' bottom lines.

A similar study in Nigeria by Okeke and Isah (2022) focused on the adoption of CRM software in commercial banks and its effect on service delivery. The researchers utilized a quantitative research design, distributing surveys to 200 bank customers and analyzing the data using statistical methods. Their findings revealed that the implementation of CRM software significantly enhanced communication between banks and customers, leading to quicker resolution of issues and improved service satisfaction. Nonetheless, the study pointed out that many banks faced challenges related to data integration and management within their CRM systems. This gap suggested a need for more comprehensive training for bank staff on utilizing CRM tools effectively, as well as a better understanding of customer data analytics. The authors concluded that further research is required to explore the barriers to effective CRM implementation in different banking contexts.

A study conducted by Mwangi and Mugo (2020) in the Nairobi region of Kenya investigated the impact of CRM software on the performance of commercial banks. The researchers employed a descriptive survey design, collecting data from 120 bank

employees across ten different banks through structured questionnaires. Their findings indicated that banks that effectively utilized CRM software experienced enhanced customer satisfaction and loyalty, leading to improved overall performance. However, the study revealed a significant knowledge gap regarding the integration of CRM software with existing banking systems. While the banks acknowledged the benefits of CRM systems, many lacked the necessary training and infrastructure to fully exploit these tools. The authors emphasized the need for more in-depth studies focusing on the specific barriers to successful CRM implementation in the Kenyan banking context.

Otieno and Kiptoo (2021) conducted their own research on how customer relationship management software helped commercial banks in Western Kenya improve their service performance. A total of 200 bank customers were polled and five bank branch managers were interviewed as part of the mixed-methods study. The findings showed that customer retention rates were favorably affected by better communication and quicker service delivery, which were brought about by an efficient CRM implementation. Yet, there is a lack of knowledge about the impact of CRM on customer behavior and bank performance indicators in the long run, according to the report. Despite promising results in the near term, the researchers found no studies that follow CRM programs over the long haul to determine their true effect. They concluded that in order to guarantee CRM's long-term advantages in banking, future study should concentrate on thorough CRM implementation methodologies.

2.2.4 Digital Payment Systems Integration and Performance of Banking Services

Nigerian researchers Adeyemo and Bayo (2021) looked at how banks fared after integrating digital payment methods. The researchers polled 150 banking industry insiders and clients from several Lagos banks using a quantitative methodology. The research discovered that overall performance measures including profitability and customer retention were improved due to the integration of digital payment systems, which greatly increased transaction speed and customer satisfaction. Having said that, the writers did note a vacuum in our understanding of the risks connected with online payment systems. The report failed to mention how banks handle cybersecurity concerns when integrating digital

payments, even if it did mention some beneficial results. The effects of security flaws on user confidence and the efficiency of the system should be further studied.

Nkosi and Mjoli (2022) looked at how digital payment systems affected the efficiency of South African banks in another study. Interviews with thirty bank managers and focus groups with sixty consumers from different Johannesburg banks made up this qualitative research. Research showed that customers had easier access to banking services and that operations were simplified with the use of digital payment methods. However, the research did highlight a major information vacuum when it came to the long-term effects of such mergers on smaller banks as opposed to bigger ones. The authors pointed out that smaller banks had a harder time adopting technology because of a lack of resources, in contrast to bigger banks that could take advantage of economies of scale. They recommended that smaller banks be the center of future studies on how to best use digital payments.

Mwangi and Wainaina (2020) looked at how different banks' service performance changed when they integrated digital payment systems in Nairobi. Researchers interviewed fifteen bank managers and gave questionnaires to one hundred twenty banking employees as part of a mixed-methods study. Digital payment methods significantly improved transaction efficiency and consumer happiness, according to the data. Nevertheless, there is still a lack of information about how these digital platforms deal with system faults and downtime, according to the report. Improving performance was a good outcome, but future studies should focus on how banks prevent service interruptions. Because of this omission, it is clear that stronger digital payment infrastructures are required to guarantee uninterrupted financial transactions.

In another investigation, Ochieng and Otieno (2021) focused on the Rift Valley region, analyzing how the integration of digital payment systems affects bank performance in that area. The researchers adopted a qualitative methodology, conducting focus group discussions with 40 bank customers and interviews with 10 banking executives. Their results indicated that digital payment systems increased transaction speed and expanded access to banking services, thus improving overall customer experience and bank profitability. Nonetheless, the authors pointed out a knowledge gap regarding the long-term

sustainability of these systems amid evolving technological challenges. They emphasized that while short-term benefits were evident, future studies should assess how digital payment integrations align with emerging financial technologies and customer expectations over time. This knowledge would be vital for banks seeking to adapt to a rapidly changing digital landscape.

2.3 Summary and Research Gaps

The literature on the effects of digital payment systems, automated teller machines (ATMs), mobile banking, and customer relationship management (CRM) software on banking services in Kenya highlighted significant progress and insights within the sector. However, various empirical studies revealed notable gaps that warranted further exploration.

For instance, while Mwangi and Wainaina (2020) and Ochieng and Otieno (2021) emphasized the improved efficiency and customer satisfaction linked to digital payment systems, they failed to address the resilience of these systems in the face of technological disruptions, such as downtime or security breaches. Similarly, studies from other African nations showed enhancements in service performance due to ATM availability (Moyo & Dube, 2020; Koomson, 2021), but the Kenyan context lacked comprehensive analysis concerning regional disparities and specific demographic impacts on access to these services.

Additionally, the literature on mobile banking adoption indicated that while banks in Kenya had made significant strides, there was insufficient focus on long-term user engagement and satisfaction (Ali & Sulieman, 2022; Gitau, 2021). Many studies concentrated primarily on initial adoption rates without assessing ongoing customer interactions or the impact of evolving technologies on user experiences.

Table 1: Summary and Research Gaps

Author of the Study	Focus of the Study	Summary of Findings	Knowledge Gaps	Focus of the Current Study
Ndlovu & Goh (2021)	Impact of ATMs on banking	Found a significant positive correlation between ATM	Influence of technological literacy on ATM	The current study will investigate how

Author of the Study	Focus of the Study	Summary of Findings	Knowledge Gaps	Focus of the Current Study
	performance in South Africa	availability and customer satisfaction, leading to increased transactional volume and enhanced service delivery.	usage; need for understanding customer skills and familiarity with technology.	technological literacy affects the use of banking services at I&M Bank Gikomba Branch.
Ojo & Adetunji (2020)	Role of ATMs in improving banking services in Nigeria	Showed that ATM convenience significantly reduced transaction time and improved customer experience, thereby enhancing banking performance metrics.	Lack of understanding of security concerns associated with ATM usage that could hinder customer trust.	This study will address security concerns related to ATM usage, examining how they impact customer trust at I&M Bank Gikomba Branch.
Karanja & Njiru (2022)	Effects of ATM availability on customer satisfaction in Nairobi	Increased ATM availability significantly enhanced customer satisfaction, reduced wait times and improved transactional efficiency.	Need to explore how demographic factors (age, income level) influence ATM interaction and service utilization.	The current study will explore demographic factors and their influence on technology usage at I&M Bank Gikomba Branch.
Mwangi & Muriuki (2023)	Relationship between ATM accessibility and service quality at banks in Mombasa	Banks with more ATMs reported better customer retention and higher service quality ratings; however, technological failures affected performance negatively.	Impact of technological failures on customer trust and usage patterns remains unaddressed.	This study will investigate the reliability of ATM services and the effects of technological failures on performance at I&M Bank Gikomba Branch.

Author of the Study	Focus of the Study	Summary of Findings	Knowledge Gaps	Focus of the Current Study
Agyekum & Morsah (2020)	Impact of mobile banking adoption on banking performance in Ghana	Found that mobile banking adoption significantly improved customer satisfaction and operational efficiency due to the convenience and speed of transactions.	Impact of trust and security concerns on mobile banking adoption; how perceived risks deter potential users.	The current study will investigate the role of trust and security perceptions in mobile banking adoption at I&M Bank Gikomba Branch.
Adeyemi & Adesanya (2021)	Influence of mobile banking on bank performance in Nigeria	Indicated that mobile banking adoption led to increased transaction volumes and improved customer retention rates, positively impacting banking performance.	Lack of understanding of the technological infrastructure needed to support mobile banking; internet connectivity issues.	This study will explore the technological infrastructure challenges and their impact on mobile banking adoption at I&M Bank Gikomba Branch.
Njoroge & Mwangi (2022)	Effects of mobile banking adoption on banking services among young professionals in Nairobi	Showed a strong correlation between mobile banking adoption and enhanced efficiency, resulting in increased customer satisfaction and improved transaction speed.	Need to understand how demographic factors influence mobile banking usage; differences in adoption rates by age and income.	The current study will analyze demographic influences on mobile banking adoption and performance at I&M Bank Gikomba Branch.
Ochieng & Wamalwa (2023)	Role of mobile banking in improving service delivery in local banks in Kisumu	Highlighted that mobile banking contributed to better performance by reducing operational costs and increasing customer loyalty.	Lack of training for bank employees on mobile banking technology; challenges customers face	This study will focus on employee training needs and customer support mechanisms to enhance mobile banking adoption

Author of the Study	Focus of the Study	Summary of Findings	Knowledge Gaps	Focus of the Current Study
			when using mobile banking.	at I&M Bank Gikomba Branch.
Nkosi & De Villiers (2021)	Impact of CRM software on retail banks' performance in South Africa	Found that effective CRM systems improved customer satisfaction and retention, enhancing overall performance.	Lack of understanding of how to optimize different CRM strategies for various banking services.	The current study will investigate how different CRM strategies can be tailored to specific banking services at I&M Bank Gikomba Branch.
Okeke & Isah (2022)	Adoption of CRM software in Nigerian commercial banks and its effect on service delivery	Revealed that CRM software improved communication and service satisfaction; however, challenges in data integration and management were significant.	Need for more training for staff on CRM utilization and a better understanding of customer data analytics.	This study will focus on the training needs of staff for effective CRM tool utilization and data management at I&M Bank Gikomba Branch.
Mwangi & Mugo (2020)	Impact of CRM software on commercial banks' performance in Nairobi, Kenya	Indicated that banks using CRM effectively enjoyed enhanced customer satisfaction and loyalty, boosting overall performance.	Significant gap in integrating CRM software with existing systems and the necessary training and infrastructure.	The current study will explore integration challenges of CRM software within the banking context of I&M Bank Gikomba Branch.
Otieno & Kiptoo (2021)	Role of CRM software in enhancing service delivery in commercial	Highlighted that effective CRM implementation improved communication and	Lack of understanding of the long-term effects of CRM on customer	This study will investigate the long-term impact of CRM initiatives on

Author of the Study	Focus of the Study	Summary of Findings	Knowledge Gaps	Focus of the Current Study
	banks in Western Kenya	service speed, positively impacting customer retention rates.	behavior and performance metrics; need for longitudinal studies.	customer relationships and performance at I&M Bank Gikomba Branch.
Adeyemo & Bayo (2021)	Impact of digital payment systems integration on banking performance in Nigeria	Found that integrating digital payment systems enhanced transaction speed and customer satisfaction, improving profitability and retention rates.	Lack of understanding of how banks manage cybersecurity risks related to digital payment systems.	The current study will investigate cybersecurity measures banks can implement to protect digital payment systems at I&M Bank Gikomba Branch.
Nkosi & Mjoli (2022)	Effects of digital payment systems on banking performance in South Africa	Showed that digital payment integration streamlined operations and improved customer access; however, smaller banks struggled with adoption due to resource limitations.	Need for research on strategies smaller banks can use to leverage digital payments effectively.	This study will explore the challenges smaller banks face in adopting digital payment systems and strategies to overcome them at I&M Bank Gikomba Branch.
Mwangi & Wainaina (2020)	Impact of digital payment systems integration on banking services in Nairobi	Indicated that digital payment systems improved transaction efficiency and customer satisfaction but did not analyze how banks handle system	Knowledge gap in how banks mitigate disruptions to service due to downtimes or errors.	The current study will assess the resilience of digital payment systems and strategies for mitigating downtimes at I&M Bank

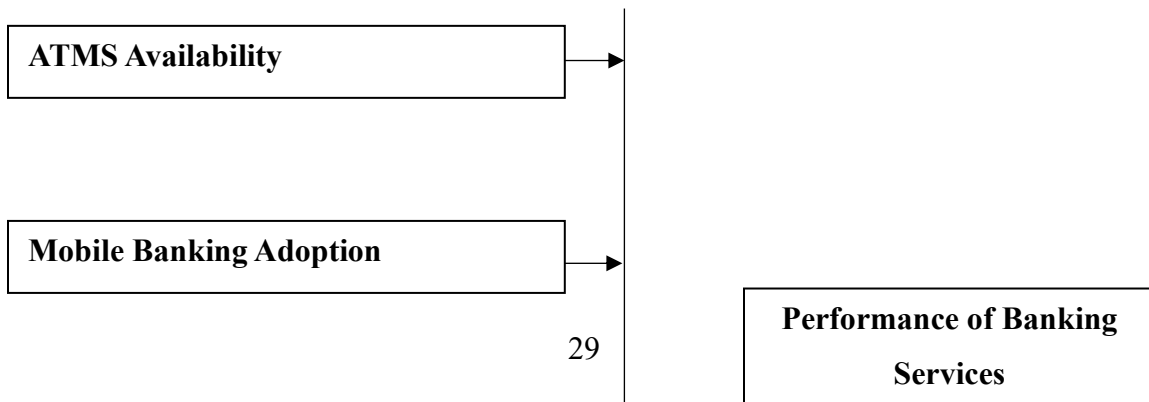
Author of the Study	Focus of the Study	Summary of Findings	Knowledge Gaps	Focus of the Current Study
		downtimes and user errors.		Gikomba Branch.
Ochieng & Otieno (2021)	Analyzing the effects of digital payment systems on bank performance in the Rift Valley region	Found that digital payment systems increased transaction speed and improved customer experience but lacked insights on the long-term sustainability amid evolving tech challenges.	Need for research on aligning digital payment systems with emerging financial technologies and evolving customer expectations.	This study will evaluate the long-term sustainability of digital payment systems in a rapidly changing digital landscape at I&M Bank Gikomba Branch.

2.4 Conceptual Framework

A conceptual framework is a structure that outlines the key variables, concepts and their relationships within a study, serving as a blueprint to guide research (Miles & Huberman, 1994). It integrates existing theories and empirical findings to explain the phenomenon being investigated, helping researchers identify research questions and hypotheses by illustrating how different variables interact (Maxwell, 2013

Independent Variable

Dependent Variable



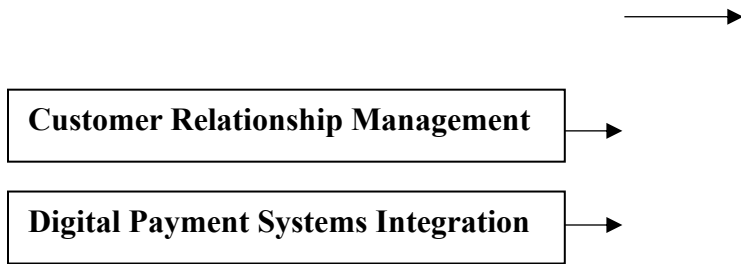


Figure 1: Conceptual Framework

2.5 Operationalization of Variables

Operationalization of variables is the process of defining abstract concepts or variables in measurable, specific terms so they can be quantitatively or qualitatively assessed within a study (Babbie, 2016). This process is critical as it ensures that variables are consistently interpreted and measured across research settings, thereby enhancing the reliability and validity of the study's findings (Neuman, 2014).

Table 2: Operationalization of Variables

Objective of the Study	Indicators	Measurement Scale	Analysis Tool
ATMS Availability	➤ ATM transaction frequency	5-Point Likert Scale	Percentages, Frequency
	➤ Customer wait time		
	➤ ATM service uptime	Questionnaire	Tables
	➤ Cash replenishment rate		
	➤ Customer satisfaction level		
Mobile Banking Adoption	➤ Mobile transaction volume	5-Point Likert Scale	Percentages, Frequency
	➤ User login frequency		
	➤ Mobile app user satisfaction	Questionnaire	Tables
	➤ Digital customer reach		
	➤ Transaction processing time		

Customer Relationship Management	➤ Customer retention rate	5-Point Likert Scale	Percentages, Frequency Tables
	➤ Issue resolution time		
	➤ Customer interaction frequency	Questionnaire	
	➤ Personalized service offers		
	➤ Data accuracy in CRM		
Digital Payment Systems Integration	➤ Transaction processing speed	5-Point Likert Scale	Percentages, Frequency Tables
	➤ Customer accessibility rate		
	➤ Digital service adoption	Questionnaire	
	➤ Payment error frequency		
	➤ System security compliance		
Performance of Banking Services	➤ Customer satisfaction rate	5-Point Likert Scale	Percentages, Frequency Tables
	➤ Transaction efficiency		
	➤ Service delivery speed	Questionnaire	
	➤ Customer retention rate		
	➤ Revenue growth rate		

2.6 Chapter Summary

This chapter provided a comprehensive review of theoretical and empirical literature on the impact of technology on banking performance, covering key theories and studies on ATMs, mobile banking, CRM and digital payment systems. It identified significant research gaps, presented a conceptual framework and operationalized variables, setting a foundation for further investigation into technology's role in banking services.

CHAPTER THREE

RESEARCH METHODOLOGY

3.0 Introduction

This section provides an overview of the study methodology, including the descriptive research design, the intended participants, the sampling strategy, and the tools used to gather data. It goes over the steps of surveying people and then using descriptive statistics to draw conclusions. An all-encompassing framework for the research study on banking service performance at I and M Bank Gikomba Branch is established, with an emphasis on ethical issues to guarantee participant protection.

3.1 Research Design

The study adopted a descriptive research design, which was effective in systematically describing and interpreting the characteristics of a specific population or phenomenon (Creswell & Creswell, 2020). Descriptive research design is particularly suitable for studies aiming to assess the current state or trends in a particular area, as it allows for an in-depth examination of the variables involved without manipulation (Saunders, Lewis, & Thornhill, 2019). This design was appropriate for understanding the relationship between technology and banking performance, as it helped capture the detailed experiences and perceptions of participants within the context of I&M Bank Gikomba Branch. Furthermore, descriptive studies are useful in providing a foundation for further research by establishing observable patterns and correlations in real-world settings (Bell, Bryman, & Harley, 2022).

3.2 Target Population

One definition of "target population" is "the full set of people or things that the researcher hopes to draw conclusions about from their study" (Sekaran & Bougie, 2020). To make sure the study's findings are applicable to the people the research is trying to understand, it's crucial to define the target audience (Creswell & Creswell, 2020). The 73 participants in this research represented a range of levels of management at I&M Bank, from upper-level executives to entry-level clerks. This particular group was significant because it included personnel from all levels of the business, offering a holistic view of how technology has affected the functioning of the bank.

Focusing on staff members from different levels allowed for diverse insights and enhanced the reliability and depth of the study findings. By examining a range of roles within I&M Bank, the research captured a broader understanding of how technology was perceived and utilized across the organization. According to Saunders, Lewis, and Thornhill (2019), defining a well-suited target population improved the validity of the study, as it increased the likelihood that findings could be applied to similar populations in comparable contexts.

Table 3: Target Population

Category	Frequency	Percentage
Top Management	8	10.96
Middle Level Management	24	32.88
Junior Staff	41	56.16
Total	73	100

3.3 Sample and Sampling Technique

In order to draw conclusions about the population as a whole without polling every single person, researchers often use sampling, which is a selection of a subset of the population chosen to be representative of the whole (Saunders, Lewis, & Thornhill, 2019). Sampling entails picking this subset in a way that makes sure it represents the target population's characteristics. For data to be reliably and accurately generalized, effective sampling is crucial (Creswell & Creswell, 2020).

A census sampling technique is suitable for this study as it involves surveying the entire target population. Census sampling is appropriate for relatively small populations, where including all members ensures comprehensive data collection and improves the accuracy of results (Mugenda & Mugenda, 2019). By surveying the entire target group, the study reduces potential biases introduced by sampling errors and provides a more reliable insight into the variables under study.

According to Mugenda and Mugenda (2019), census sampling is particularly valuable in studies aiming for in-depth analysis across all population units, especially when the population size is manageable. Additionally, Saunders, Lewis and Thornhill (2020) highlight that a census approach is ideal for achieving robust and detailed findings when the entire population is accessible, as in this case. Therefore, the use of census sampling allowed for a more exhaustive understanding of factors affecting banking performance through the lens of every staff level at the Gikomba Branch, contributing to the study's credibility.

Table 4: Sample Size

Category	Target Population	Sample Size
Top Management	8	8
Middle Level Management	24	24
Junior Staff	41	41
Total	73	73

3.4 Instruments

In order to gather information for this research, participants assessed their agreement with different statements using a 5-point Likert scale in a standardized questionnaire. In order to quantify complex replies for statistical analysis, the Likert scale offered a standardized method of measuring subjective opinions (Krosnick & Presser, 2020). Attitudes, perceptions, and satisfaction—essential components of understanding banking service performance—were best measured using a 5-point Likert scale (Joshi et al., 2021).

Since a questionnaire could efficiently gather data from many responders in a short amount of time, it was a reasonable option. Particularly in research conducted in the workplace, questionnaires allowed for honest replies since they were inexpensive, easy to administer, and provided respondents with anonymity (Saunders, Lewis, & Thornhill, 20). Bryman (2019) adds that questionnaires provide consistency in answers, which boosts the credibility of quantitative research results. Hence, this instrument works well for collecting

extensive data on the research variables. In order to measure how customers feel about the service they received at the I and M Bank Gikomba Branch, this study's questionnaire will only include closed-ended items.

3.5 Pilot Study

The purpose of a pilot study is to assess potential problems with a research project in terms of time, money, and practicality before the full-scale investigation takes place. In order to find any problems that might impact the primary research, it is used to evaluate the data collecting equipment and methods (Van Teijlingen & Hundley, 2019). In order to fine-tune the research strategy and technique, a pilot study is conducted to verify that the tools used are capable of collecting the intended data (Thabane et al., 2010).

In order to gather information for this research, participants assessed their agreement with different statements using a 5-point Likert scale in a standardized questionnaire. In order to quantify complex replies for statistical analysis, the Likert scale offered a standardized method of measuring subjective opinions (Krosnick & Presser, 2020). Attitudes, perceptions, and satisfaction—essential components of understanding banking service performance—were best measured using a 5-point Likert scale (Joshi et al., 2021).

Since a questionnaire could efficiently gather data from many responders in a short amount of time, it was a reasonable option. Particularly in workplace research, questionnaires allowed for honest replies since they were inexpensive, easy to administer, and provided respondents with anonymity (Saunders, Lewis, & Thornhill, 202).

3.5.1 Validity

The term "validity" describes how well a research instrument captures the target variables. All three types of validity—content, construct, and criterion-related—are necessary to guarantee that an instrument accurately measures the variables of interest (Cresswell & Creswell, 2022). In order to guarantee that study findings are reliable and relevant, it is crucial to attain high validity (Fraunkel, Wallen, & Hyun, 2022).

In order to gather information for this research, participants assessed their agreement with different statements using a 5-point Likert scale in a standardized questionnaire. In order to quantify complex replies for statistical analysis, the Likert scale offered a standardized method of measuring subjective opinions (Krosnick & Presser, 2020). Attitudes, perceptions, and satisfaction—essential components of understanding banking service performance—were best measured using a 5-point Likert scale (Joshi et al., 2021). Since a questionnaire could efficiently gather data from many responders in a short amount of time, it was a reasonable option. Particularly in workplace research, questionnaires allowed for honest replies since they were inexpensive, easy to administer, and provided respondents with anonymity (Saunders, Lewis, & Thornhill, 202).

3.5.2 Reliability

A measuring instrument is considered reliable if it maintains its accuracy and stability over a period of time. The consistency of the instrument's findings across multiple instances is ensured by its ability to provide the same results under identical settings (Creswell & Creswell, 2022; Fraenkel, Wallen, & Hyun, 2022). The findings of a research can only be validated if they are repeatable, and a dependable equipment delivers just that.

Several measures were used to guarantee dependability in this study. In order to ensure that the questionnaire would provide consistent results, a pilot study was conducted with a small sample size of 7 respondents drawn from the target group. Furthermore, questions were encouraged to be worded clearly and precisely in order to reduce the possibility of misconceptions and increase the credibility of the answers. The study's authors were able to evaluate the data with conviction and make relevant conclusions on the performance of banking services since they ensured the instrument was dependable.

3.6 Data Collection Procedure

The research team at I&M Bank used a structured questionnaire to gather information from their target demographic. To guarantee methodical and ethical study methods, data collecting included many critical procedures.

The first step in conducting this study within the banking industry was to get a letter of license from the Management University of Africa. This letter helped acquire access to the desired institution and bolstered the research's reputation. Afterwards, approval was requested from the upper management of I&M Bank, the location of the study. By taking this measure, we were able to allay the bank's fears about data protection and employee participation while also informing them of our study goals and methods.

Trained research assistants helped distribute the surveys after permission was given. Important to the success of the survey were the helpers who distributed the questionnaires and answered any queries the participants may have had. After giving respondents a full week to fill out each survey, we finally gathered them all. The research assistants made sure that all answers were gathered effectively by returning beyond this time to collect the filled-out questionnaires.

3.7 Data Analysis and Presentation

Descriptive statistics, with an emphasis on percentages and frequencies, were used to examine the data obtained from the surveys. The data could be easily interpreted using this strategy, which shed light on how the respondents' replies were distributed. Microsoft Excel, a popular application for rapid data processing and statistical analysis, was utilized to perform the research. By calculating frequencies in Excel for each answer group, the researcher was able to provide a concise summary of the data and the conclusions.

The presentation of the analyzed data utilized various visual tools to enhance clarity and understanding. Tables were employed to organize data in a structured format, making it easy for readers to compare and interpret the results. Additionally, bar graphs were used to visually represent the frequency of responses for specific questions, highlighting trends and patterns in the data. Pie charts were also incorporated to illustrate proportional relationships among different categories, providing a clear visual representation of how respondents' views were distributed across various aspects of the study. These visual aids not only facilitated comprehension but also engaged the audience, making the findings more accessible.

3.8 Ethical Considerations

Ethical considerations in research refer to the moral principles and standards that guide researchers in the conduct of their studies (Creswell & Creswell, 2022). These considerations are vital in ensuring the integrity of research and protecting the rights and well-being of participants (Israel & Hay, 2020).

3.8.1 Informed Consent

A basic ethical concept, informed consent guarantees that individuals are completely knowledgeable of the research's nature, goal, and any hazards involved before they accept to take part (Creswell & Creswell, 2022; Mertens, 2019). In order for participants to make a well-informed choice about participating, the researcher gave them all the information they needed about the study. After being informed about the research and given the chance to ask questions, participants were asked to sign a permission form indicating their comprehension and voluntary acceptance to participate.

3.8.2 Voluntary Participation

Research participants should be able to make an informed decision about participating in the study without feeling pressured or manipulated in any way (Bryman, 2020; Israel & Hay, 2020). Participants were under no obligation to continue and were free to discontinue participation at any moment without penalty, as the researchers stressed. This method emphasized the need of upholding ethical norms in research while also honoring the autonomy of participants.

3.8.3 Confidentiality

Confidentiality involves the obligation of researchers to protect the privacy of participants by safeguarding their personal information (Creswell & Creswell, 2022; Mertens, 2019). This was ensured by assigning unique identifiers to responses and securely storing data to prevent unauthorized access. Participants were informed about the measures taken to protect their information, assuring them that their data would be used solely for research purposes.

3.8.4 Privacy

According to Bryman (2020) and Israel and Hay (2020), researchers must respect the personal space and data of participants in order to maintain privacy in study. The researcher took all required measures to guarantee that no one outside the study team would have access to the respondents' private information or replies. Ensuring participants' anonymity throughout the research process, we made sure their names would not be linked to any conclusions disclosed in the study.

3.8.5 Anonymity

Anonymity guarantees that participants' identities are not connected to their responses in any way (Creswell & Creswell, 2022; Mertens, 2019). To achieve this, the study utilized coding methods that eliminated any identifying information linked to the data collected. Participants were informed about how their anonymity would be preserved, which encouraged openness and honesty in their responses.

3.9 Chapter Summary

This section provides an overview of the study methodology, including the descriptive research design, the intended participants, the sampling strategy, and the tools used to gather data. It goes over the steps of surveying people and then using descriptive statistics to draw conclusions. An all-encompassing framework for the research study on banking service performance at I and M Bank Gikomba Branch is established, with an emphasis on ethical issues to guarantee participant protection.

CHAPTER FOUR

PRESENTATION, ANALYSIS AND INTERPRETATIONS OF FINDINGS

4.0 Introduction

This chapter presents and analyzes the study's findings, addressing the impact of ATMs, mobile banking, CRM software and digital payment systems on banking performance at I and M Bank, Gikomba Branch. It includes a discussion on response rates, demographics and study objectives, followed by identified limitations.

4.1 Presentation of Research Findings

The findings collected by the study are being presented through tables, graphs and pie charts. These presentations provide a detailed analysis of each finding based on the four objectives outlined. A narration accompanies each analysis to interpret the data, leading to conclusions that will be drawn later from the overall findings.

4.1.1 Response Rate

The response rate for the study was 67 out of 73 total respondents, resulting in a high response rate of approximately 91.8%. This suggests that the findings are based on a strong and reliable sample, which enhances the validity of the study's conclusions regarding the impact of technology on banking services at I and M Bank, Gikomba Branch.

Table 5: Response Rate

Category	Frequency	Percentage
Response	67	91.78
Non-Response	6	8.22
Total	73	100

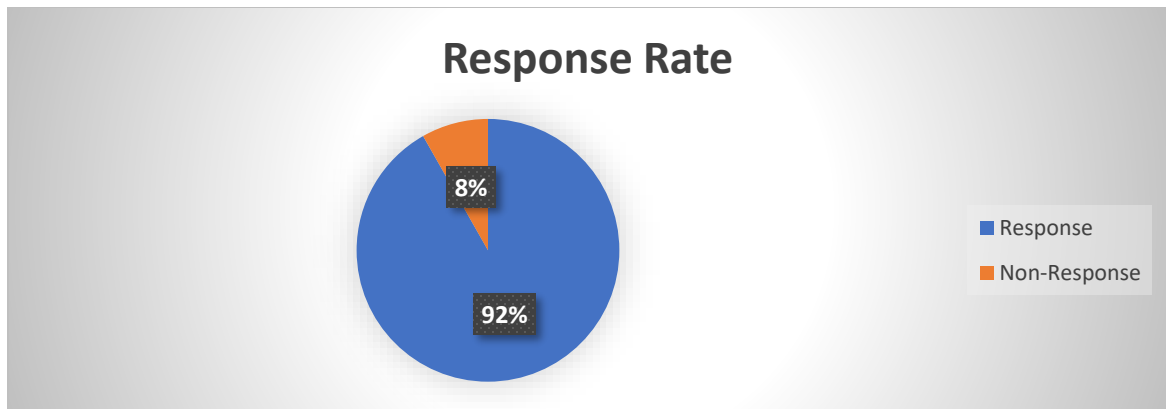


Figure 2: Response Rate

The response rate for the study was 67 out of 73 total respondents, resulting in a high response rate of approximately 91.8%. This indicates that the study's findings are based on a robust and reliable sample, which enhances the validity and generalizability of the conclusions regarding the impact of technology on banking services at I and M Bank, Gikomba Branch. A high response rate reduces the likelihood of nonresponse bias and ensures that the data collected is representative of the target population (Mugenda & Mugenda, 2003; Creswell & Creswell, 2018). These authors emphasize that a high response rate strengthens the reliability and credibility of a study, making the findings more reflective of the population studied.

4.1.2 Background Information

The study gathered general background information on respondents to establish a clear demographic profile, which was crucial for analyzing how different factors, such as gender, age, education and position, influenced their experience with banking technologies. This demographic data provided valuable context for interpreting responses and ensured that the findings were representative of the diverse customer and employee base at I and M Bank, Gikomba Branch. According to Kothari (2004) and Creswell and Creswell (2018), collecting demographic data is essential in research as it helps identify patterns and contextualize findings, ensuring the study captures the diversity and nuances of the target population, which in turn strengthens the relevance and applicability of the results.

4.1.2.1 Gender Distribution of the Respondents

The study sought information on the gender distribution of respondents to understand if gender played a role in the adoption and use of banking technology. This demographic data could reveal whether certain genders had different preferences or experiences with banking services, which could impact the overall performance of banking services at I and M Bank, Gikomba Branch. It was relevant for analyzing how technology affects different customer groups.

Table 6: Gender Distribution of the Respondents

Category	Frequency	Percentage
Male	39	58.21
Female	28	41.79
Total	67	100

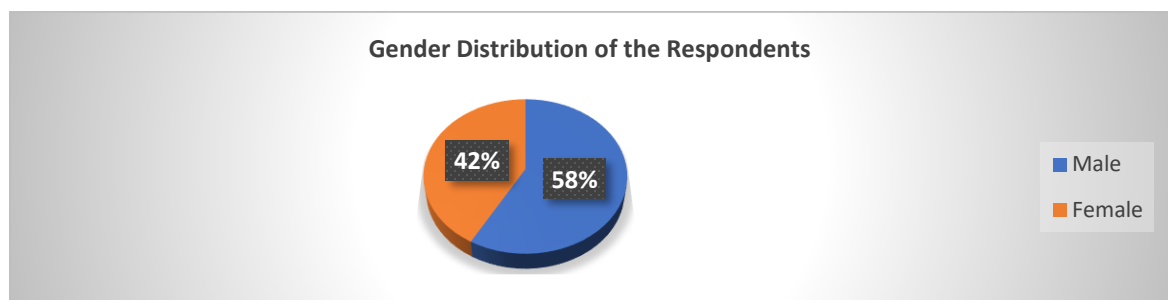


Figure 3: Gender Distribution of the Respondents

The gender distribution of the respondents showed that 39 were male and 28 were female, indicating a slightly higher male representation in the study sample. While the gender difference is not extreme, it suggests a potential area for further exploration to understand whether male and female customers experience or perceive banking technology differently at I and M Bank, Gikomba Branch. Mugenda and Mugenda (2003) and Creswell and Creswell (2018) emphasize the importance of analyzing demographic variables such as gender in research, as these variables can influence how individuals interact with and perceive the subject of study, thereby providing a deeper understanding of the findings' implications.

4.1.2.2 Age range of the Respondents

The research aimed to determine whether there was an age difference in the adoption and usage of financial technology by asking participants about their age range. The ease and familiarity with digital payment methods, mobile banking, and automated teller machines (ATMs) may differ among age groups. The study's ability to account for this demographic variable allowed it to draw conclusions about the effects of technology on service performance across generations and the relative merits of the difficulties and opportunities faced by various age groups.

Table 7: Age range of the Respondents

Category	Frequency	Percentage
18-24	12	17.91
25-34	25	37.31
35-44	18	26.87
45-54	8	11.94
55 and above	4	5.97
Total	67	100

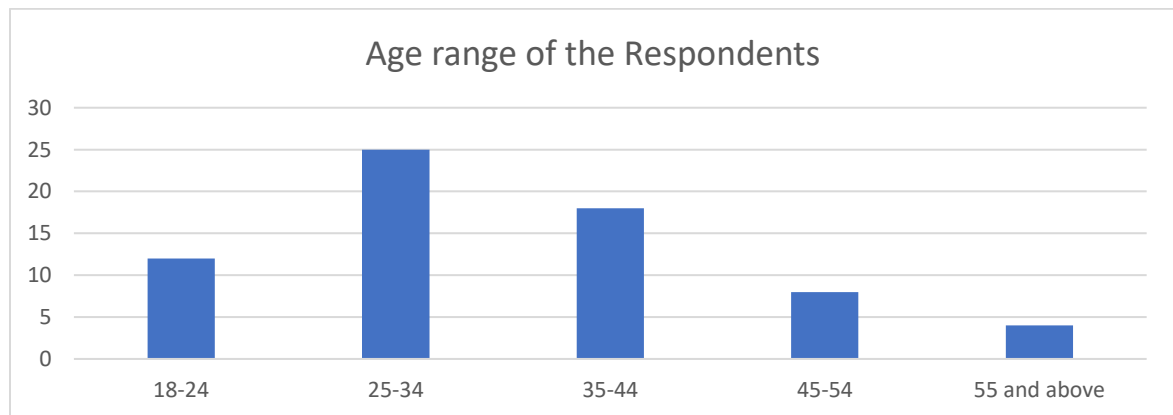


Figure 4: Age range of the Respondents

The age distribution of respondents indicates a predominance of individuals between 25 and 34 years old, with 25 respondents in this range. This suggests that the majority of

customers engaging with I and M Bank, Gikomba Branch, are within the younger, tech-savvy age group, likely more comfortable with banking technologies. The findings highlight the importance of targeting this demographic for technology-driven banking services. According to Kothari (2004) and Creswell (2014), analyzing age demographics in research helps identify specific population segments that are most likely to interact with the studied phenomenon, enabling targeted strategies and interventions to enhance effectiveness and relevance.

4.1.2.3 Highest level of Education of the Respondents

The study inquired about the highest level of education of respondents to determine if education influenced the understanding and use of banking technologies. Higher education levels might correlate with greater technological adoption and familiarity with digital banking tools like ATMs, mobile banking and CRM systems. This information was essential for understanding how educational background affected the effectiveness of technology in improving banking service performance at I and M Bank, Gikomba Branch.

Table 8: Highest level of Education of the Respondents

Category	Frequency	Percentage
Diploma	20	29.85
Bachelor's degree	28	41.79
Graduate degree	19	28.36
Total	67	100

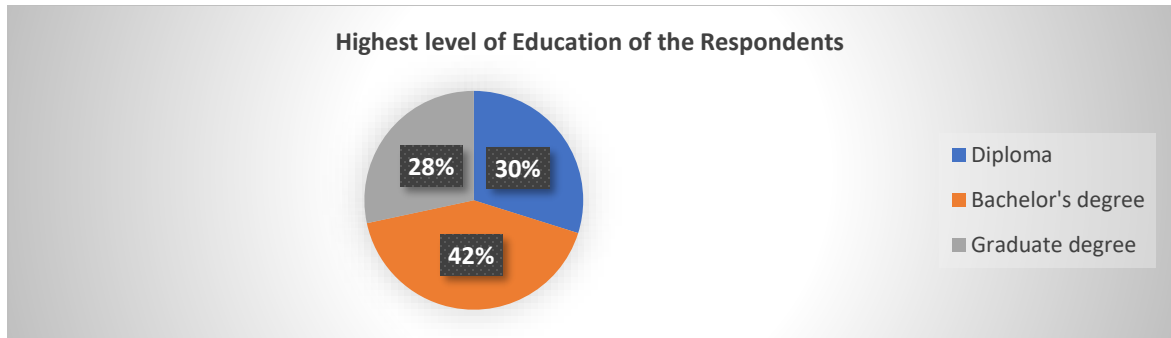


Figure 5: Highest level of Education of the Respondents

The educational background of the respondents shows that the majority hold a Bachelor's degree (28 respondents), followed by those with a Graduate degree (19 respondents) and a Diploma (20 respondents). This indicates that the customer base at I and M Bank, Gikomba Branch, is well-educated, suggesting a higher likelihood of comfort and understanding in adopting advanced banking technologies such as mobile banking and ATMs. Creswell and Creswell (2018) and Mugenda and Mugenda (2003) emphasize that analyzing respondents' educational levels helps researchers understand their capacity to engage with complex systems or technologies, enabling targeted interventions to enhance usability and adoption rates. This ensures that the findings reflect the population's readiness and ability to interact with such technologies.

4.1.2.4 Department/Position of the Respondent

The study sought information on the department or position of the respondents to understand their role in the bank and how it might influence their experience with banking technologies. Employees in different departments or positions might have varying levels of interaction with technologies like ATMs, mobile banking, or CRM systems. This data helped the study assess how employees' roles within the bank impacted their perception of technology's effect on service performance.

Table 9: Department/Position of the Respondent

Category	Frequency	Percentage
Top Management	6	8.96
Middle Level Management	22	32.84
	45	

Junior Staff	39	58.21
Total	67	100

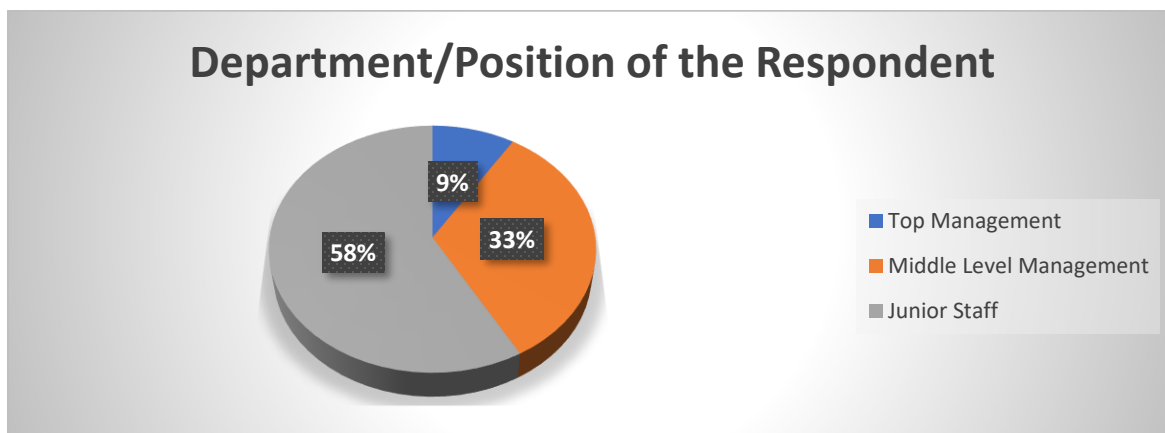


Figure 6: Department/Position of the Respondent

The distribution of respondents by department/position reveals that most participants were junior staff (39 respondents), followed by middle-level management (22 respondents) and only 6 in top management. This indicates that the majority of respondents have direct interactions with banking technologies, offering valuable insights into how these technologies influence service performance from frequent users' perspectives at I and M Bank, Gikomba Branch. According to Creswell and Creswell (2018) and Kothari (2004), selecting respondents with direct operational experience ensures the data collected is relevant and reflective of practical interactions with the subject of study, thereby enhancing the validity and applicability of the findings.

4.1.3 Study Objectives

Because they are directly related to the contemporary performance of banking services, the research chose to concentrate on the four goals of ATM availability, mobile banking adoption, CRM software, and digital payment systems integration. The study's overarching goal was to determine the effect that technology progress has on three key performance indicators for banks: customer happiness, service efficiency, and overall performance. To

determine how well technology improved banking services at I & M Bank, Gikomba Branch and met client demands, several criteria were critical.

4.1.3.1 ATM Availability and Banking Performance

The study focused on ATM availability and its impact on banking performance to assess how the accessibility and reliability of ATMs influenced customer satisfaction and service efficiency. ATMs are a critical aspect of modern banking, enabling faster and more convenient transactions. By exploring this variable, the study aimed to determine if the presence and functionality of ATMs improved the overall banking experience and operational performance at I and M Bank, Gikomba Branch.

4.1.3.1.1 Customers frequently use ATMs for their banking transactions.

In order to gauge the importance of ATMs in people's day-to-day banking, the survey inquired as to how often consumers used them for financial transactions. Users' high levels of satisfaction with and efficiency with the usage of automated teller machines (ATMs) suggest that these devices play a pivotal role in the delivery of services. This research aimed to examine the impact of ATM availability on the overall performance of banking services at I and M Bank, Gikomba Branch by analyzing the degree of ATM use.

Table 10: Customers frequently use ATMs for their banking transactions

Category	Frequency	Percentage
Strongly Disagree	2	2.99
Disagree	5	7.46
Neutral	8	11.94
Agree	28	41.79
Strongly Agree	24	35.82
Total	67	100

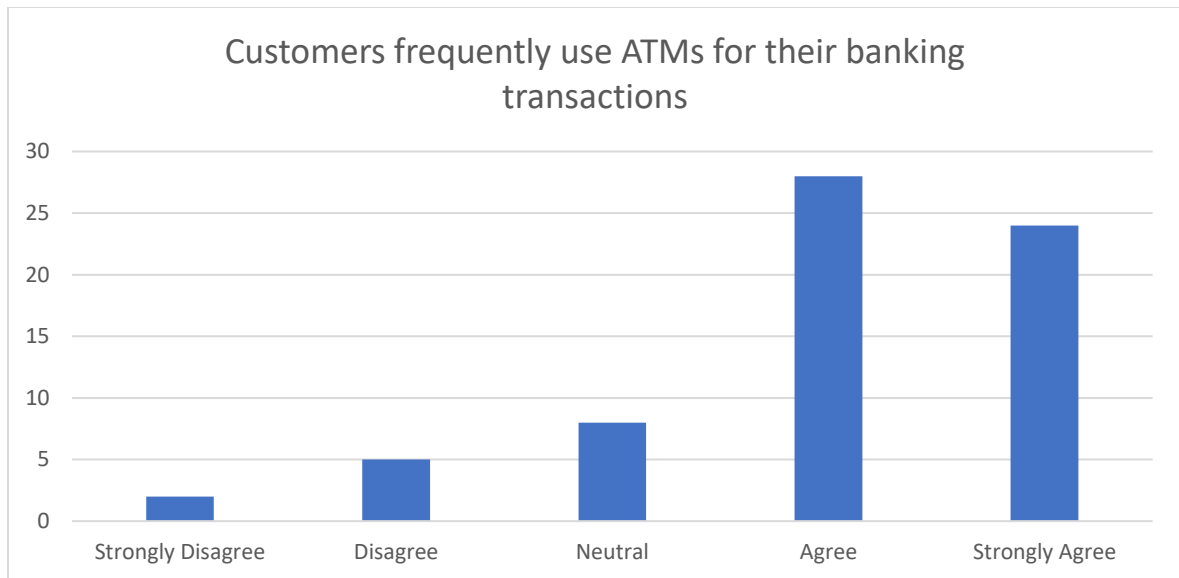


Figure 7: Customers frequently use ATMs for their banking transactions

According to the results, a considerable portion of the participants (52 out of 67) agree or strongly agree that they use ATMs for their financial activities on a regular basis. What this means is that automated teller machines (ATMs) are very important to the banking operations of customers at I and M Bank, Gikomba Branch, as they improve banking efficiency and consumer convenience. Karanja and Njiru (2022) also discovered that more ATMs were available, which led to happier customers, shorter wait times, and more efficient transactions.

4.1.3.1.2 The wait time for customers at ATMs is generally acceptable.

The study inquired about the acceptability of wait times at ATMs to determine how this factor affected customer satisfaction and the overall efficiency of banking services. Long wait times could lead to frustration and decreased service performance, while shorter wait times could enhance customer experience. This question aimed to assess whether ATM performance, specifically in terms of wait time, contributed to the quality of service at I and M Bank, Gikomba Branch.

Table 11: The wait time for customers at ATMs is generally acceptable

Category	Frequency	Percentage
Strongly Disagree	3	4.48
Disagree	10	14.93
Neutral	12	17.91
Agree	25	37.31
Strongly Agree	17	25.37
Total	67	100

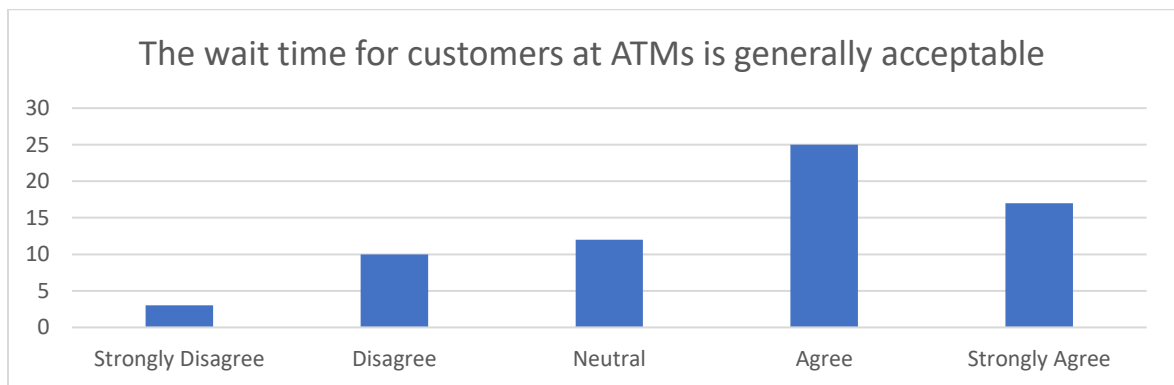


Figure 8: The wait time for customers at ATMs is generally acceptable

The findings show that a majority of respondents (42 out of 67) agreed or strongly agreed that the wait time at ATMs is generally acceptable, though 13 respondents expressed dissatisfaction. This indicates that while ATM efficiency meets customer expectations for most users at I and M Bank, Gikomba Branch, there is room for improvement in reducing wait times. Mwangi and Muriuki (2023) also highlighted the positive correlation between higher numbers of ATMs and improved service quality, emphasizing that addressing delays can further enhance customer retention and trust. These findings align with the broader understanding of ATM efficiency in improving banking services.

4.1.3.1.3 The ATMs are mostly operational and available for customer use.

The study asked about the operational status and availability of ATMs to assess the reliability of this banking technology. Frequent downtime or non-operational ATMs could

negatively impact customer satisfaction and service performance. By examining the availability of ATMs, the study aimed to determine if consistent access to functional ATMs contributed to the efficiency and effectiveness of banking services at I and M Bank, Gikomba Branch.

Table 12: The ATMs are mostly operational and available for customer use

Category	Frequency	Percentage
Strongly Disagree	4	5.97
Disagree	8	11.94
Neutral	10	14.93
Agree	26	38.81
Strongly Agree	19	28.36
Total	67	100

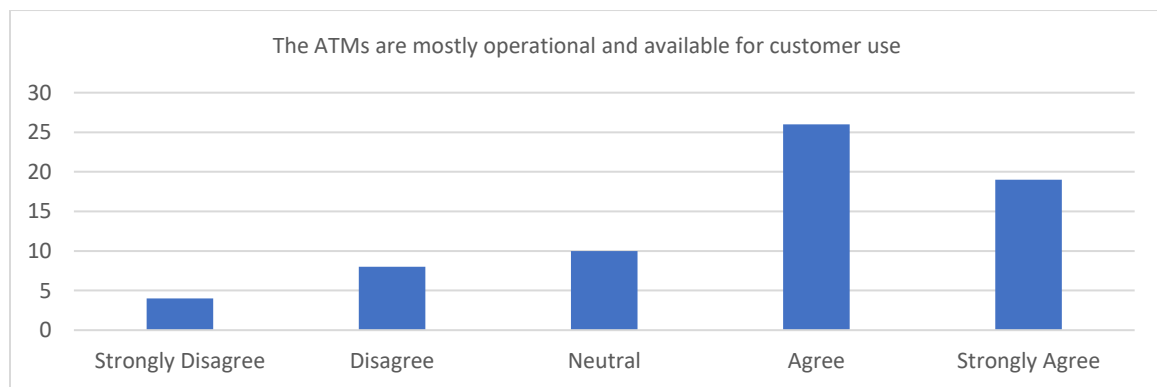


Figure 9: The ATMs are mostly operational and available for customer use

The findings indicate that 45 out of 67 respondents (67%) agreed or strongly agreed that ATMs at I and M Bank, Gikomba Branch, are mostly operational and available, though 12 respondents highlighted occasional issues that could impact customer experience. This suggests that while ATMs are generally reliable, operational challenges may affect service performance. Similar findings were reported by Ndlovu and Goh (2021) who also highlighted a positive correlation between ATM availability and customer satisfaction but

noted that operational issues, such as system failures, can negatively impact trust and usage. These findings underline the importance of maintaining reliable ATM operations.

4.1.3.1.4 ATMs are adequately stocked with cash to meet customer needs.

The study asked whether ATMs were adequately stocked with cash to evaluate their reliability in meeting customer demands. Insufficient cash in ATMs could lead to customer frustration and negatively affect service performance. By addressing this, the study aimed to determine if the availability of cash in ATMs was a critical factor in ensuring smooth, efficient banking transactions and enhancing overall customer satisfaction at I and M Bank, Gikomba Branch.

Table 13: ATMs are adequately stocked with cash to meet customer needs

Category	Frequency	Percentage
Strongly Disagree	5	7.46
Disagree	7	10.45
Neutral	11	16.42
Agree	27	40.30
Strongly Agree	17	25.37
Total	67	100

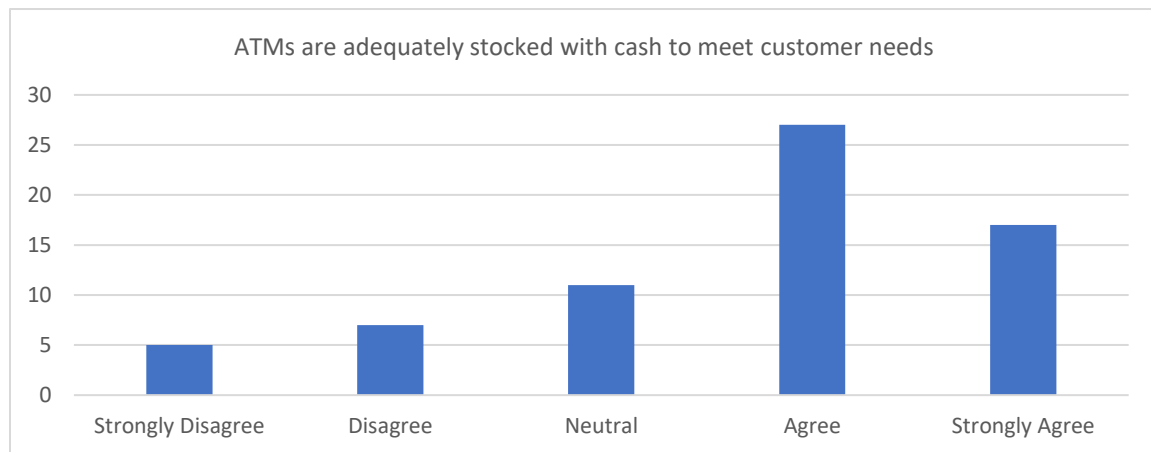


Figure 10: ATMs are adequately stocked with cash to meet customer needs

The findings show that 44 out of 67 respondents (66%) agreed or strongly agreed that ATMs are adequately stocked with cash to meet customer needs, though 12 respondents noted occasional issues with cash availability. This indicates that while most customers are satisfied, intermittent shortages may affect service performance at I and M Bank, Gikomba Branch. Ojo and Adetunji (2020) similarly observed that adequately stocked ATMs enhanced customer experience by reducing transaction delays and improving satisfaction.

4.1.3.1.5 Customers express satisfaction with the ATM services provided.

The study asked about customer satisfaction with ATM services to assess the overall effectiveness of ATMs in enhancing banking performance. Customer satisfaction is a key indicator of how well ATMs meet user needs, such as convenience, reliability and speed. By exploring this, the study aimed to determine if ATM services contributed positively to the overall banking experience and service quality at I and M Bank, Gikomba Branch, thereby impacting customer retention and loyalty.

Table 14: Customers express satisfaction with the ATM services provided

Category	Frequency	Percentage
Strongly Disagree	3	4.48
Disagree	6	8.96
Neutral	13	19.40
Agree	25	37.31
Strongly Agree	20	29.85
Total	67	100

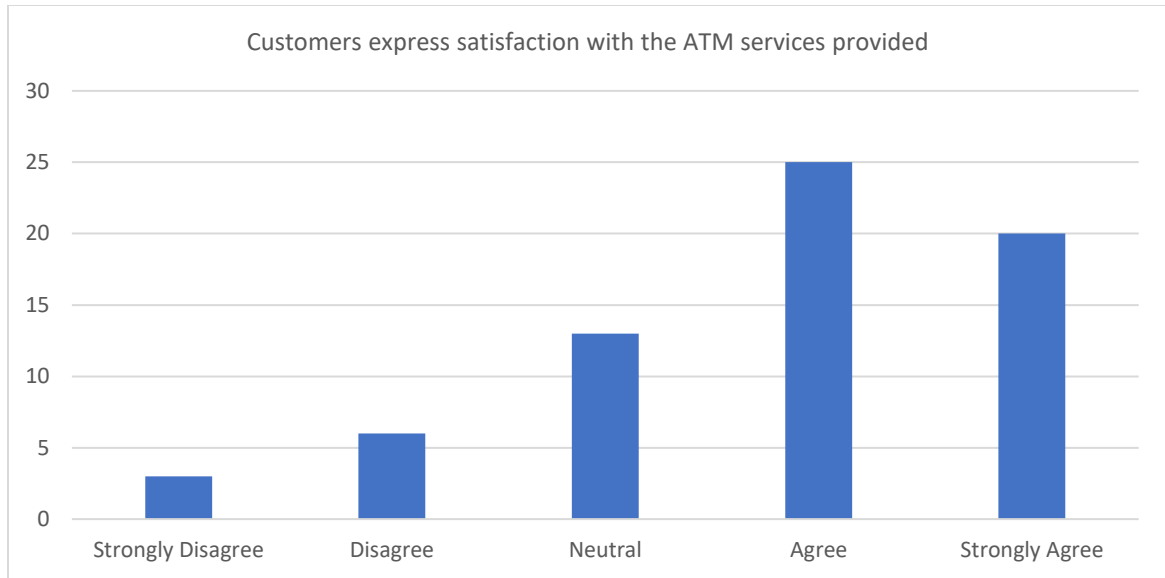


Figure 11: Customers express satisfaction with the ATM services provided

The findings reveal that 45 out of 67 respondents (67%) expressed satisfaction with the ATM services provided, though 9 respondents noted dissatisfaction, suggesting room for improvement in addressing specific concerns. This indicates that ATMs at I and M Bank, Gikomba Branch, generally contribute positively to customer satisfaction and banking performance. Karanja and Njiru (2022) also reported enhanced customer satisfaction due to reduced wait times and improved service delivery through ATMs. These findings confirm the importance of maintaining high-quality ATM services to sustain and further improve customer satisfaction.

4.1.3.2 Mobile Banking Adoption and Banking Performance

The study focused on mobile banking adoption and its impact on banking performance to explore how the integration of mobile banking technologies influenced customer convenience, service efficiency and satisfaction. As mobile banking becomes increasingly vital for customers, understanding its adoption rate and effectiveness helped assess whether it improved access to banking services, reduced transaction times and contributed to overall performance improvements at I and M Bank, Gikomba Branch.

4.1.3.2.1 Customers regularly conduct transactions through mobile banking.

The study asked whether customers regularly conduct transactions through mobile banking to assess the extent of mobile banking adoption. Regular use would indicate that mobile banking is a preferred and effective channel for customers, improving service accessibility and convenience. By exploring this, the study aimed to understand how mobile banking influenced customer satisfaction, efficiency and overall banking performance at I and M Bank, Gikomba Branch.

Table 15: Customers regularly conduct transactions through mobile banking

Category	Frequency	Percentage
Strongly Disagree	2	2.99
Disagree	6	8.96
Neutral	10	14.93
Agree	30	44.78
Strongly Agree	19	28.36
Total	67	100

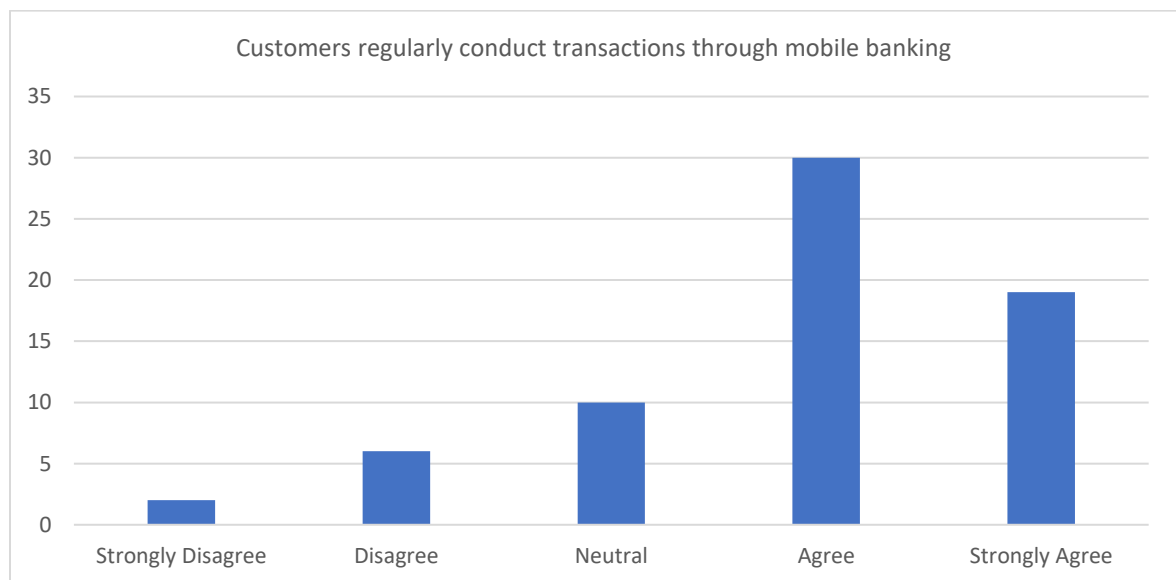


Figure 12: Customers regularly conduct transactions through mobile banking

The results demonstrate that a significant number of customers at I and M Bank, Gikomba Branch use mobile banking services, with 49 out of 67 respondents (73%) agreeing or strongly agreeing that they do so often. All the more reason to use mobile banking to make banking more convenient for customers and more efficient overall. By providing customers with speedier and more convenient transactions, Agyekum and Morsah (2020) discovered that mobile banking usage greatly increased operational efficiency and customer satisfaction. Taken together, these results demonstrate how important mobile banking is for contemporary banks to boost efficiency and client involvement.

4.1.3.2.2 Customers frequently log into mobile banking app.

As a measure of client involvement with mobile banking services, the survey asked how often users log into the app. Customers that log in often are likely satisfied with and confident in the mobile banking system since they are actively utilizing the app for a variety of financial requirements. I and M Bank, Gikomba Branch relied on this data to determine the extent to which the introduction of mobile banking affected the accessibility, convenience, and overall performance of their banking services.

Table 16: Customers frequently log into mobile banking app

Category	Frequency	Percentage
Strongly Disagree	1	1.49
Disagree	7	10.45
Neutral	9	13.43
Agree	32	47.76
Strongly Agree	18	26.87
Total	67	100

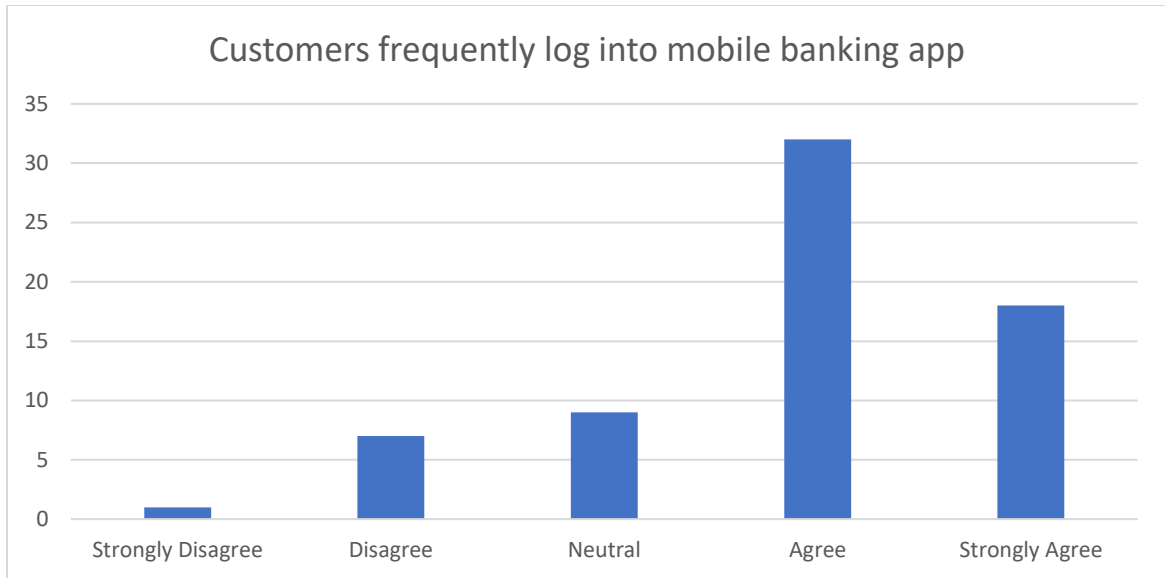


Figure 13: Customers frequently log into mobile banking app

The findings indicate that 50 out of 67 respondents (75%) agreed or strongly agreed that they frequently log into the mobile banking app, reflecting high engagement with the platform at I and M Bank, Gikomba Branch. This suggests that the app is effective in meeting customer needs, though 8 respondents noted the need for additional support to increase usage. Likewise, Njoroge and Mwangi (2022) observed that frequent mobile banking usage was associated with improved transaction accessibility and customer satisfaction, emphasizing the platform’s role in enhancing banking service performance and meeting modern customer demands.

4.1.3.2.3 Receive positive feedback from customers regarding mobile app.

The study asked about receiving positive feedback from customers regarding the mobile app to assess customer satisfaction and the perceived effectiveness of the mobile banking service. Positive feedback would indicate that the mobile banking app met customer expectations in terms of usability, functionality and service delivery. This information was important for evaluating whether mobile banking adoption enhanced customer experience and contributed to improved banking performance at I and M Bank, Gikomba Branch.

Table 17: Receive positive feedback from customers regarding mobile app

Category	Frequency	Percentage
Strongly Disagree	3	4.48
Disagree	8	11.94
Neutral	12	17.91
Agree	28	41.79
Strongly Agree	16	23.88
Total	67	100

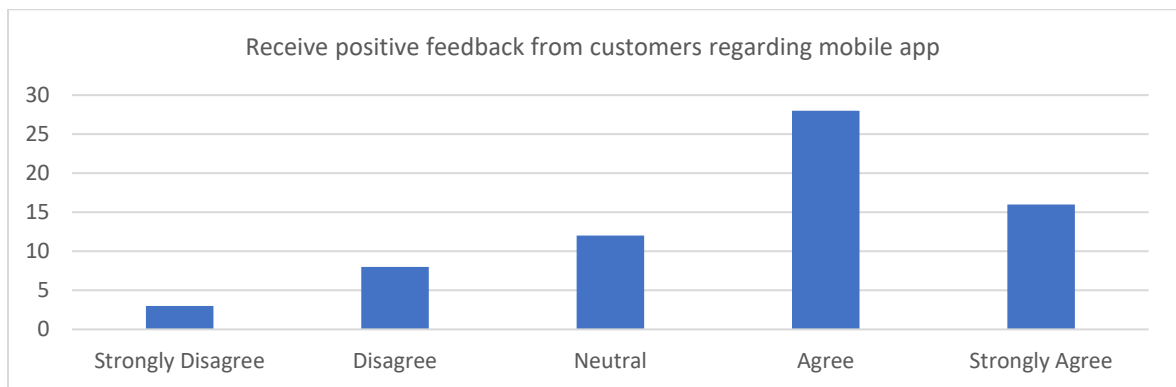


Figure 14: Receive positive feedback from customers regarding mobile app

The findings reveal that 44 out of 67 respondents (66%) agreed or strongly agreed that they receive positive feedback from customers regarding the mobile app, indicating that it is well-received by most users at I and M Bank, Gikomba Branch, and contributes to enhanced customer satisfaction. However, 11 respondents expressed reservations, suggesting areas for improvement to meet all user expectations. Adeyemi and Adesanya (2021) also reported increased customer retention linked to mobile banking, emphasizing its positive reception among users. These findings highlight the importance of continuous improvements to sustain high levels of customer satisfaction.

4.1.3.2.4 Mobile banking app effectively reaches a broad customer base.

The study asked whether the mobile banking app effectively reached a broad customer base to assess its accessibility and inclusiveness. If the app was widely adopted by various

customer segments, it would indicate that mobile banking was successfully expanding the bank's service reach. This information was crucial for understanding how mobile banking contributed to improving service performance by providing convenient access to banking services for a larger audience at I and M Bank, Gikomba Branch.

Table 18: Mobile banking app effectively reaches a broad customer base

Category	Frequency	Percentage
Strongly Disagree	4	5.97
Disagree	5	7.46
Neutral	13	19.40
Agree	29	43.28
Strongly Agree	16	23.88
Total	67	100

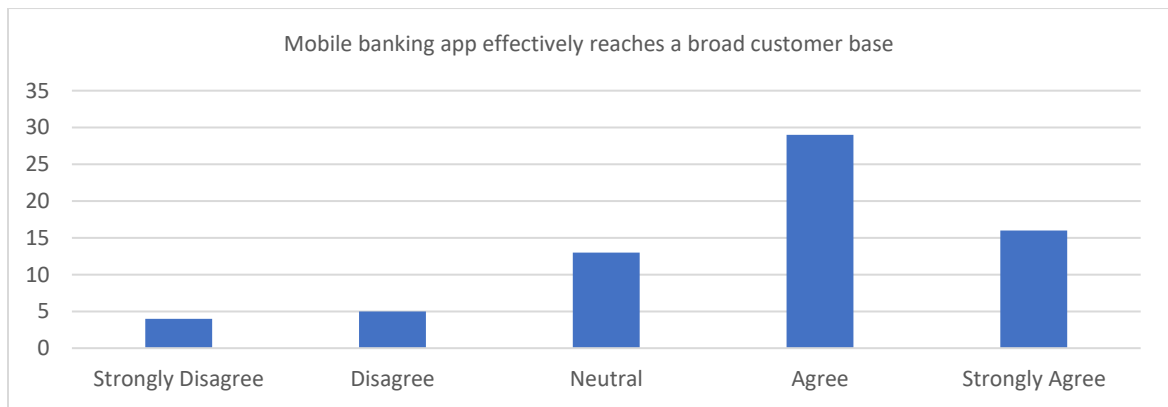


Figure 15: Mobile banking app effectively reaches a broad customer base

The findings show that 45 out of 67 respondents (67%) agreed or strongly agreed that the mobile banking app effectively reaches a broad customer base, suggesting it is widely accessible and caters to diverse customers at I and M Bank, Gikomba Branch. However, 9 respondents noted gaps in reaching all segments, highlighting areas for improvement. Njoroge and Mwangi (2022) similarly observed that mobile banking enhanced accessibility

and efficiency but identified demographic differences in usage, suggesting that tailoring services to specific customer segments could improve adoption.

4.1.3.2.5 Transactions via mobile app are processed in a timely manner.

The study asked whether transactions via the mobile app were processed in a timely manner to evaluate the efficiency of the mobile banking service. Timely transaction processing is critical for customer satisfaction and the overall performance of banking services. This question helped the study assess whether mobile banking was improving service speed and reducing delays, ultimately contributing to enhanced customer experience and operational effectiveness at I and M Bank, Gikomba Branch.

Table 19: Transactions via mobile app are processed in a timely manner

Category	Frequency	Percentage
Strongly Disagree	2	2.99
Disagree	6	8.96
Neutral	11	16.42
Agree	30	44.78
Strongly Agree	18	26.87
Total	67	100

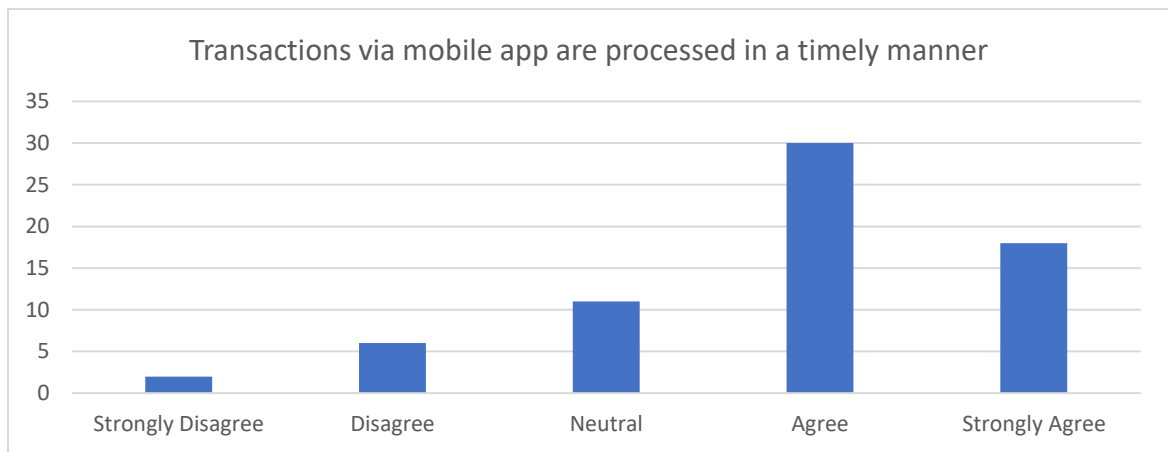


Figure 16: Transactions via mobile app are processed in a timely manner

The findings indicate that 48 out of 67 respondents (72%) agreed or strongly agreed that transactions via the mobile app are processed in a timely manner, reflecting the efficiency of the mobile banking system at I and M Bank, Gikomba Branch, in providing prompt services. However, 8 respondents noted occasional delays, which could impact the user experience. Agyekum and Morsah (2020) similarly found that mobile banking significantly improved transaction speed and operational efficiency, contributing to customer satisfaction. These findings underscore the importance of maintaining system reliability to ensure consistently prompt services for all customers.

4.1.3.3 Customer Relationship Management (CRM) Software and Banking Performance

The study focused on CRM software and its impact on banking performance to explore how the use of technology in managing customer relationships influenced service quality and customer satisfaction. CRM systems help banks track customer interactions, personalize services and resolve issues more efficiently. By examining this, the study aimed to assess how effectively CRM software contributed to enhancing customer service, improving satisfaction and optimizing overall banking performance at I and M Bank, Gikomba Branch.

4.1.3.3.1 Customer Relationship Management tools effectively enhance customer retention.

The study asked whether CRM tools effectively enhanced customer retention to assess how well the bank's use of CRM technology helped in maintaining long-term customer relationships. Effective CRM tools enable personalized services and prompt issue resolution, which can lead to increased customer loyalty. This question was crucial for evaluating whether CRM software contributed to improved customer satisfaction and retention, ultimately enhancing banking performance at I and M Bank, Gikomba Branch.

Table 20: Customer Relationship Management tools enhance customer retention

Category	Frequency	Percentage
Strongly Disagree	3	4.48
Disagree	7	10.45
Neutral	14	20.90
Agree	29	43.28
Strongly Agree	14	20.90
Total	67	100

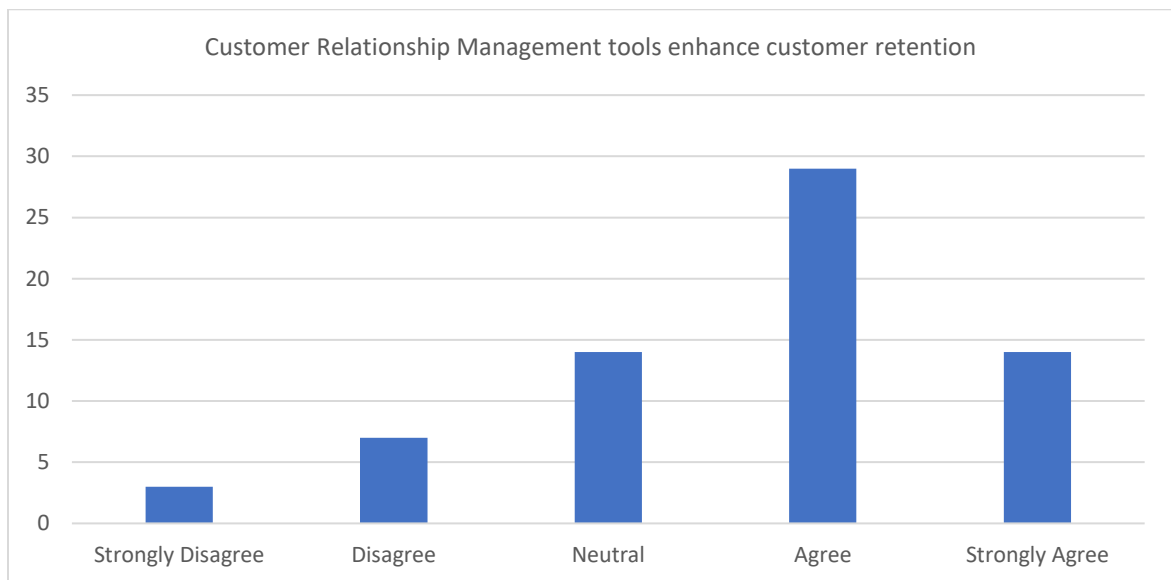


Figure 17: Customer Relationship Management tools enhance customer retention

The findings reveal that 43 out of 67 respondents (64%) agreed or strongly agreed that Customer Relationship Management (CRM) tools effectively enhance customer retention, suggesting that CRM software is instrumental in fostering loyalty and long-term relationships at I and M Bank, Gikomba Branch. However, 10 respondents noted potential areas for improvement. Similar findings were reported by Nkosi and De Villiers (2021), who highlighted that effective CRM systems significantly improved customer satisfaction and retention, directly influencing banking performance.

4.1.3.3.2 Customer issues are resolved quickly through our CRM systems.

The study asked whether customer issues were resolved quickly through CRM systems to evaluate the efficiency of the CRM in addressing customer concerns. Timely issue resolution is essential for maintaining customer satisfaction and loyalty. By assessing this, the study aimed to determine if CRM systems contributed to faster response times and improved service quality, thereby positively impacting the overall performance of banking services at I and M Bank, Gikomba Branch.

Table 21: Customer issues are resolved quickly through our CRM systems

Category	Frequency	Percentage
Strongly Disagree	4	5.97
Disagree	9	13.43
Neutral	10	14.93
Agree	28	41.79
Strongly Agree	16	23.88
Total	67	100

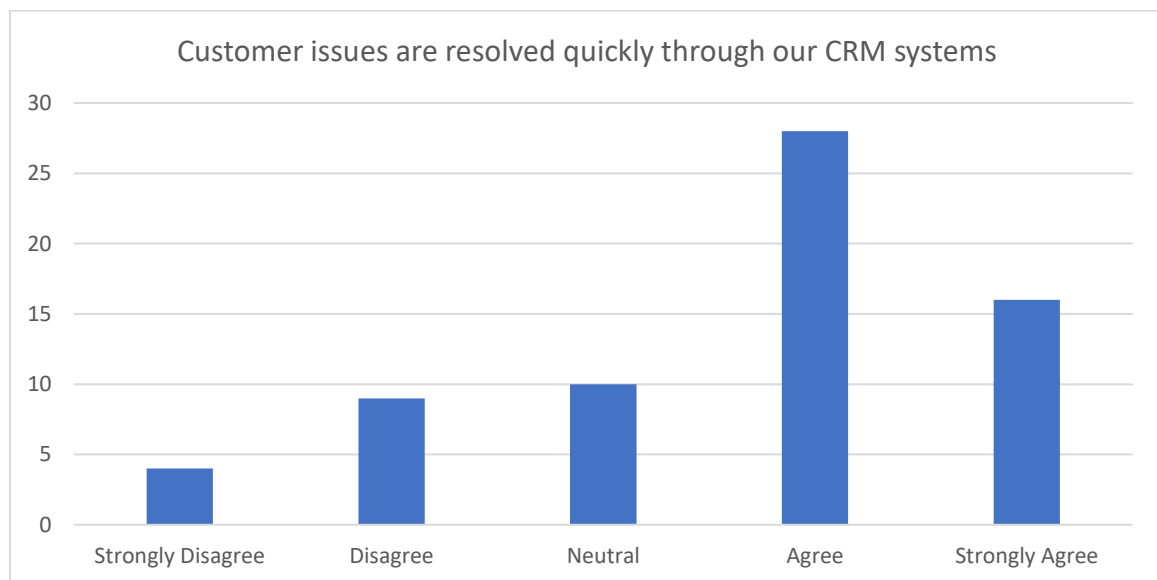


Figure 18: Customer issues are resolved quickly through our CRM systems

The findings indicate that 44 out of 67 respondents (66%) agreed or strongly agreed that customer issues are resolved quickly through the CRM systems, suggesting that CRM tools significantly enhance problem resolution efficiency at I and M Bank, Gikomba Branch. However, 13 respondents noted gaps in responsiveness, indicating areas for improvement. Okeke and Isah (2022) similarly found that CRM software significantly enhanced communication between banks and customers, leading to quicker resolution of issues and improved service satisfaction. These findings emphasize the role of responsive CRM systems in improving customer service and addressing operational gaps.

4.1.3.3 Frequently interact with customers using CRM software.

The study asked whether employees frequently interact with customers using CRM software to assess the extent to which CRM tools were integrated into daily operations. Regular use of CRM software for customer interactions indicates that the bank was actively leveraging the technology to personalize and improve customer service. This question was important for determining if CRM software was effectively enhancing communication, building customer relationships and improving the overall performance of banking services at I and M Bank, Gikomba Branch.

Table 22: Frequently interact with customers using CRM software

Category	Frequency	Percentage
Strongly Disagree	2	2.99
Disagree	10	14.93
Neutral	15	22.39
Agree	25	37.31
Strongly Agree	15	22.39
Total	67	100

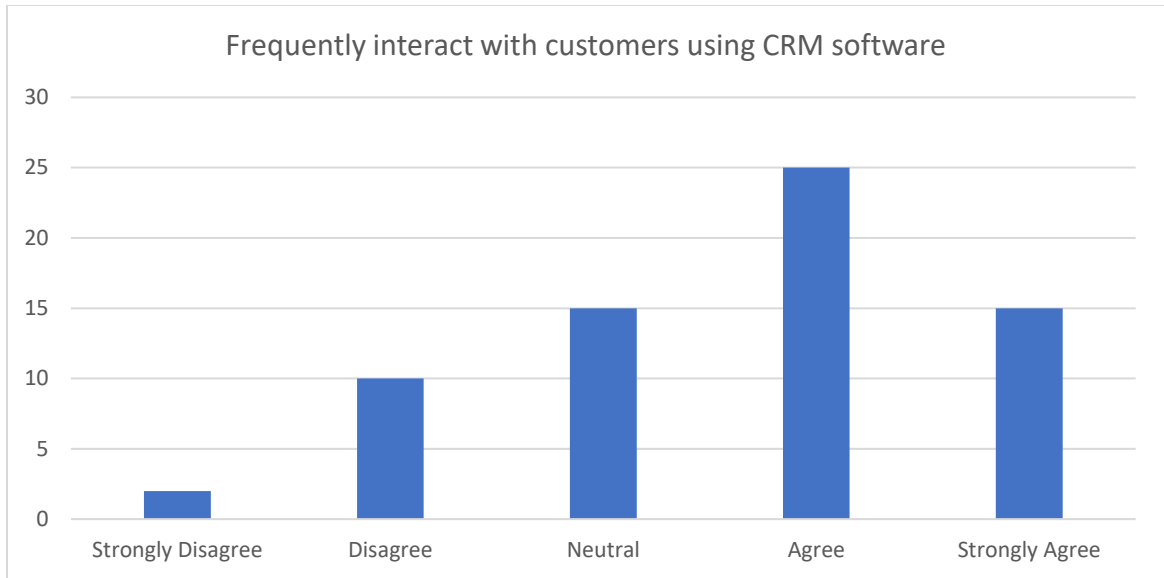


Figure 19: Frequently interact with customers using CRM software

The findings show that 40 out of 67 respondents (60%) agreed or strongly agreed that they frequently interact with customers using CRM software, indicating active use of CRM tools for customer engagement at I and M Bank, Gikomba Branch. However, 12 respondents highlighted inconsistencies in CRM utilization. Mwangi and Mugo (2020) also noted that frequent use of CRM tools enhanced customer satisfaction and loyalty, though they identified gaps in the integration of CRM systems with banking operations. These findings underscore the need for consistent CRM utilization to maximize its benefits in customer interactions and engagement.

4.1.3.3.4 Able to provide personalized service offers to customers.

The study asked whether the bank was able to provide personalized service offers to customers through CRM software to assess how effectively the system supported tailored services. Personalization, enabled by CRM tools, helps meet individual customer needs and enhances satisfaction. This question was key to evaluating whether CRM systems were improving customer service by offering targeted solutions, which in turn contributed to better banking performance at I and M Bank, Gikomba Branch.

Table 23: Able to provide personalized service offers to customers

Category	Frequency	Percentage
Strongly Disagree	5	7.46
Disagree	6	8.96
Neutral	12	17.91
Agree	28	41.79
Strongly Agree	16	23.88
Total	67	100

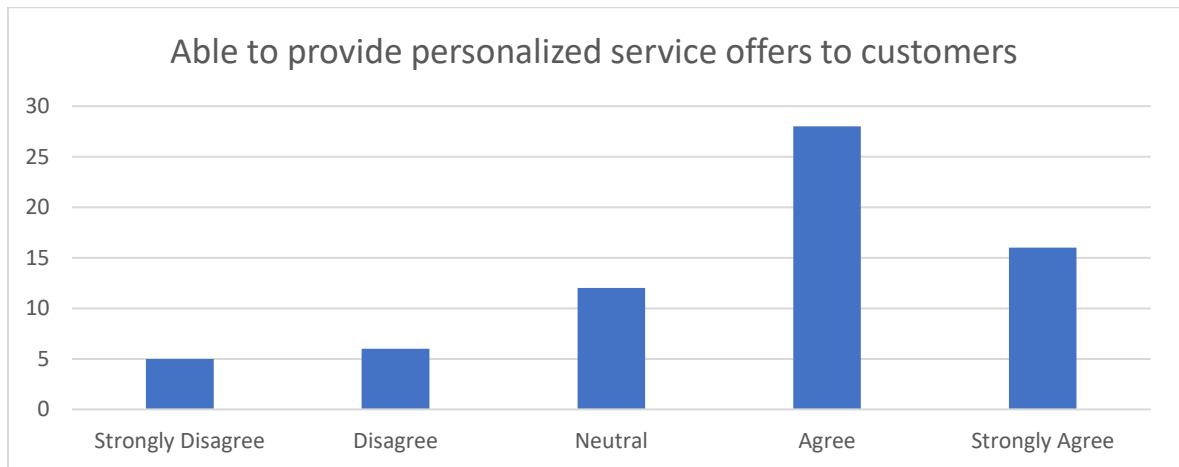


Figure 20: Able to provide personalized service offers to customers

The findings reveal that 44 out of 67 respondents (66%) agreed or strongly agreed that they are able to provide personalized service offers to customers using CRM software, indicating that CRM tools at I and M Bank, Gikomba Branch, are effective in tailoring services to individual customer needs. However, 11 respondents highlighted areas for improvement in leveraging CRM systems for personalization. Nkosi and De Villiers (2021) similarly found that effective use of CRM systems improved customer satisfaction by enabling personalized interactions, though they noted that many banks did not fully utilize CRM features, resulting in suboptimal outcomes. These findings highlight the potential for further optimizing CRM capabilities.

4.1.3.3.5 The data in CRM system is accurate and reliable.

The study asked whether the data in the CRM system was accurate and reliable to ensure that the bank's decisions and customer interactions were based on trustworthy information. Accurate data is crucial for delivering effective, personalized services and for resolving customer issues efficiently. This question was important for assessing whether the CRM system was functioning optimally, thus supporting improved service quality and overall banking performance at I and M Bank, Gikomba Branch.

Table 24: The data in CRM system is accurate and reliable

Category	Frequency	Percentage
Strongly Disagree	3	4.48
Disagree	8	11.94
Neutral	13	19.40
Agree	27	40.30
Strongly Agree	16	23.88
Total	67	100

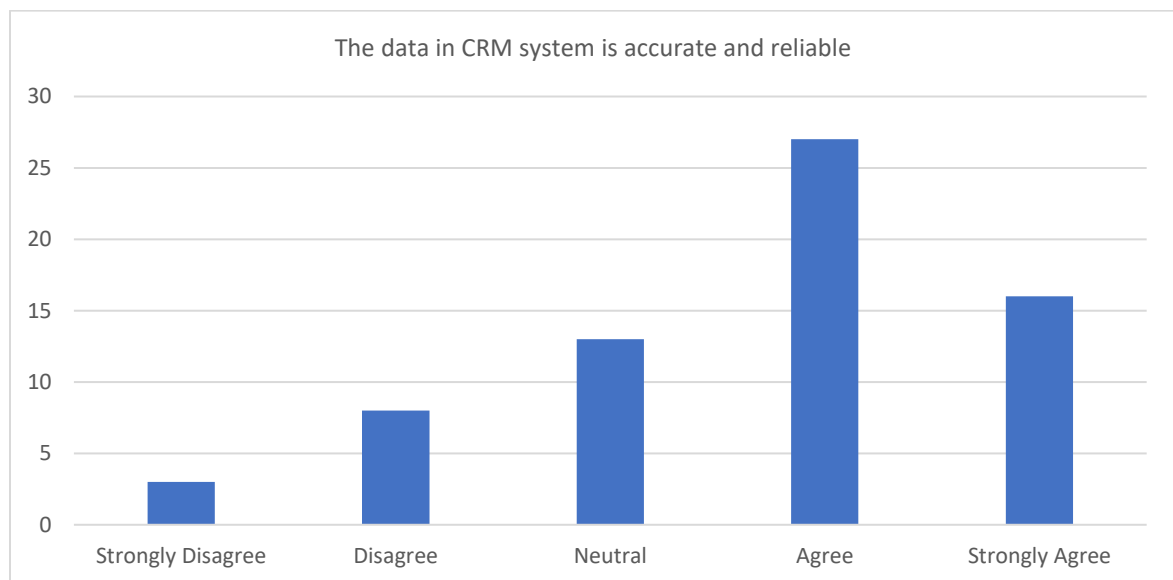


Figure 21: The data in CRM system is accurate and reliable

The findings show that 43 out of 67 respondents (64%) agreed or strongly agreed that the data in the CRM system is accurate and reliable, indicating that the CRM system at I and M Bank, Gikomba Branch, generally supports dependable decision-making and customer service. However, 11 respondents noted occasional inaccuracies, which could hinder the system's effectiveness. Mwangi and Mugo (2020) also pointed out that while CRM tools are beneficial for banking performance, data reliability issues can limit their full potential. These findings emphasize the importance of robust data management practices within CRM systems.

4.1.3.4 Digital Payment Systems Integration and Banking Performance

In order to determine the effects of digital payment methods on service efficiency and customer satisfaction, the research zeroed in on the integration of digital payment systems and how it affected banking performance. The use of digital payments simplifies, expedites, and sometimes even speeds up financial transactions. The purpose of this research was to find out whether the Gikomba Branch of I and M Bank was able to improve their banking operations and the customer service they provided by using digital payment technologies.

4.1.3.4.1 Digital payment transactions are processed efficiently at the bank.

The study asked whether digital payment transactions were processed efficiently at the bank to evaluate the effectiveness of the bank's digital payment systems. Efficient processing of transactions is vital for ensuring quick and smooth customer experiences, which can enhance satisfaction and service performance.

Table 25: Digital payment transactions are processed efficiently at the bank

Category	Frequency	Percentage
Strongly Disagree	2	2.99
Disagree	7	10.45
Neutral	11	16.42
Agree	29	43.28
Strongly Agree	18	26.87

Total

67

100

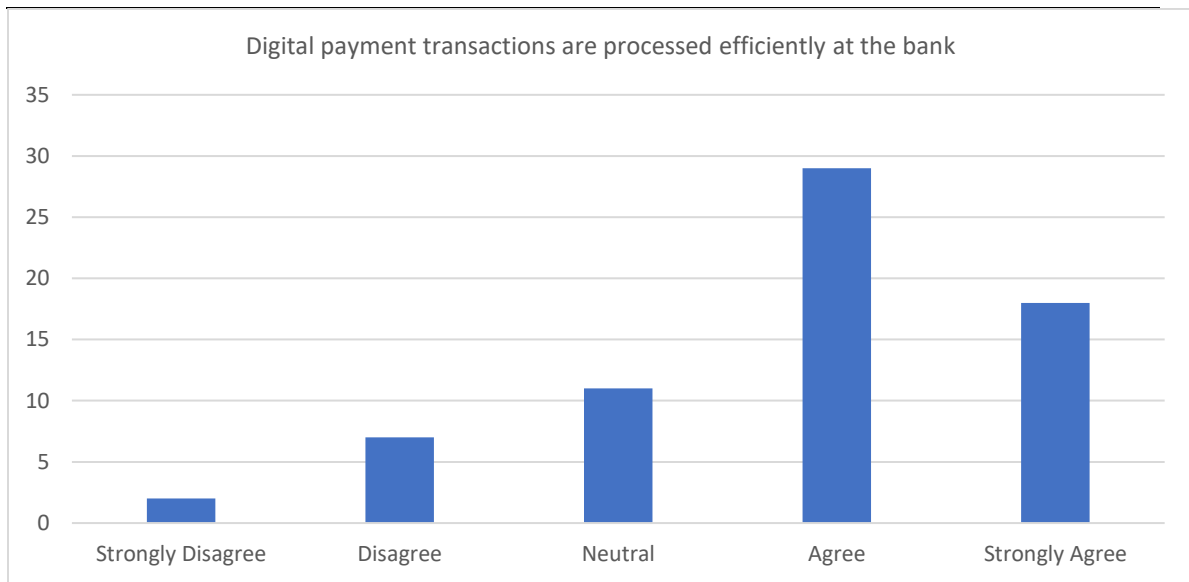


Figure 22: Digital payment transactions are processed efficiently at the bank

The findings indicate that 47 out of 67 respondents (70%) agreed or strongly agreed that digital payment transactions are processed efficiently at the bank, suggesting that digital payment systems at I and M Bank, Gikomba Branch, are effective in ensuring smooth and timely transactions. However, 9 respondents highlighted occasional inefficiencies, pointing to areas for improvement. Similar findings were reported by Adeyemo and Bayo (2021), who found that digital payment systems significantly enhanced transaction speed and customer satisfaction, contributing to improved banking performance metrics. These studies affirm the importance of efficient digital payment systems in banking performance.

4.1.3.4.2 Digital payment systems enhance customer accessibility to services.

The study asked whether digital payment systems enhanced customer accessibility to services to assess how these technologies made banking more convenient. Digital payment systems allow customers to access services remotely and at any time, improving convenience and broadening service reach. This question was crucial for determining if digital payment systems contributed to greater accessibility, thus improving customer satisfaction and overall banking performance at I and M Bank, Gikomba Branch.

Table 26: Digital payment systems enhance customer accessibility to services

Category	Frequency	Percentage
Strongly Disagree	3	4.48
Disagree	5	7.46
Neutral	10	14.93
Agree	30	44.78
Strongly Agree	19	28.36
Total	67	100

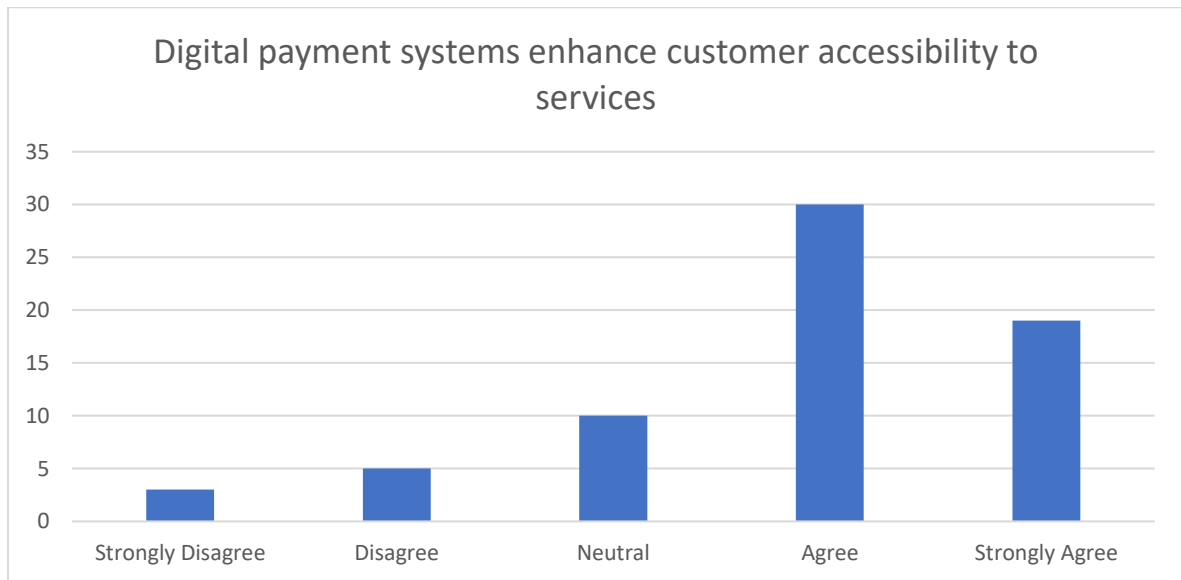


Figure 23: Digital payment systems enhance customer accessibility to services

The findings reveal that 49 out of 67 respondents (73%) agreed or strongly agreed that digital payment systems enhance customer accessibility to services, suggesting that digital payment integration at I and M Bank, Gikomba Branch, plays a crucial role in improving service reach and convenience. However, 8 respondents noted barriers to accessing these services. Ochieng and Otieno (2021) also emphasized that digital payment systems increased accessibility and improved customer experiences, though they noted challenges related to long-term system sustainability. These findings highlight the importance of ensuring inclusivity and addressing barriers to accessibility.

4.1.3.4.3 Staff promote the adoption of digital payment services among customers.

The purpose of the research was to assess the efficacy of staff in encouraging clients to utilize digital payment systems by asking whether they had done so. Employees' ability to inform and help consumers in using digital payment systems is a critical component in boosting client acceptance. In order to determine whether the employees of I and M Bank, Gikomba Branch contributed to the improvement of the bank's overall performance by increasing consumer engagement with digital payment services, this question was crucial.

Table 27: Staff promote the adoption of digital payment services among customers

Category	Frequency	Percentage
Strongly Disagree	4	5.97
Disagree	6	8.96
Neutral	12	17.91
Agree	28	41.79
Strongly Agree	17	25.37
Total	67	100

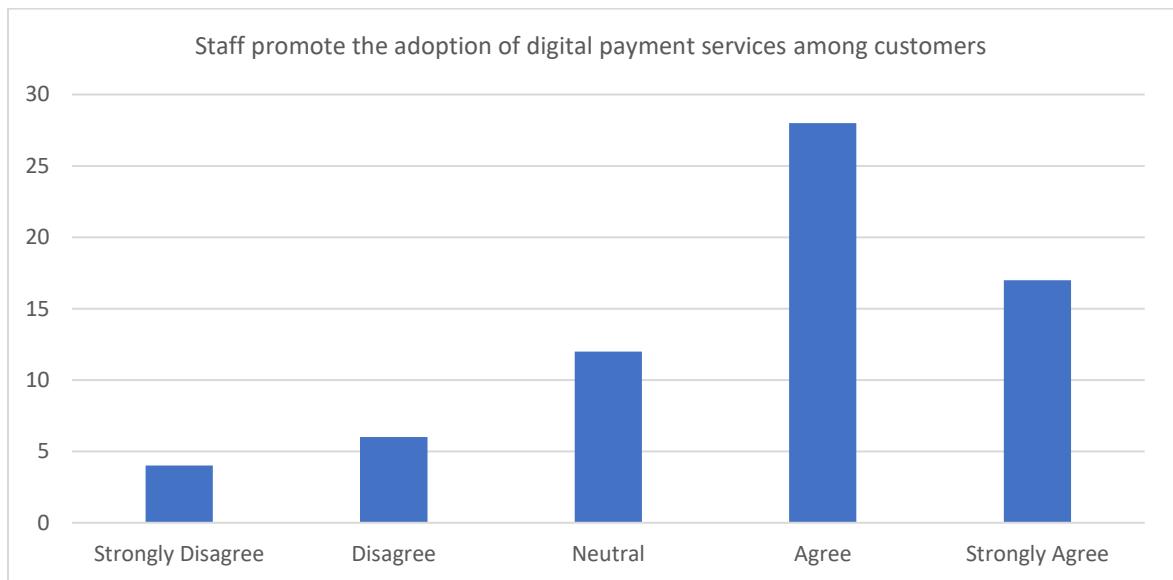


Figure 24: Staff promote the adoption of digital payment services among customers

The findings show that 45 out of 67 respondents (67%) agreed or strongly agreed that staff promote the adoption of digital payment services among customers, indicating active efforts by staff at I and M Bank, Gikomba Branch, to encourage the use of these systems. However, 10 respondents highlighted inconsistencies in these efforts. Ochieng and Otieno (2021) similarly found that staff engagement played a key role in promoting the adoption of digital payment systems, contributing to enhanced customer experiences and bank profitability. These findings underscore the importance of staff in supporting digital payment adoption.

4.1.3.4.4 Experience minimal errors when processing digital payments.

The study asked whether minimal errors were experienced when processing digital payments to evaluate the reliability and accuracy of the bank’s digital payment systems. Frequent errors can lead to customer dissatisfaction and operational inefficiencies. This question was essential for determining whether the integration of digital payment systems was functioning smoothly and contributing to high-quality service delivery, thereby enhancing the overall banking performance at I and M Bank, Gikomba Branch.

Table 28: Experience minimal errors when processing digital payments

Category	Frequency	Percentage
Strongly Disagree	3	4.48
Disagree	8	11.94
Neutral	13	19.40
Agree	27	40.30
Strongly Agree	16	23.88
Total	67	100

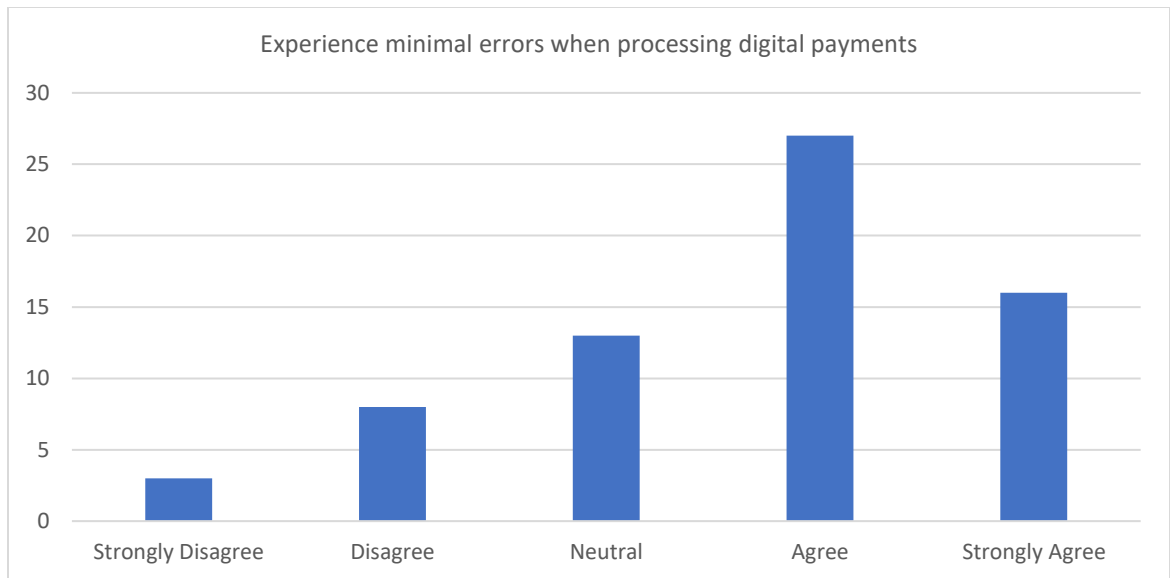


Figure 25: Experience minimal errors when processing digital payments

The findings indicate that 43 out of 67 respondents (64%) agreed or strongly agreed that they experience minimal errors when processing digital payments, suggesting that digital payment systems at I and M Bank, Gikomba Branch, are generally reliable and support efficient transactions. However, 11 respondents noted occasional errors, which may impact customer satisfaction. Mwangi and Wainaina (2020) similarly found that digital payment systems enhanced transaction efficiency but identified challenges such as system downtimes and user errors that could disrupt service reliability. These findings emphasize the need for robust systems to ensure consistent reliability.

4.1.3.4.5 Digital payment systems comply with necessary security regulations.

The study asked whether digital payment systems complied with necessary security regulations to assess the safety and trustworthiness of the bank’s digital payment infrastructure. Compliance with security regulations is crucial for protecting customer data and preventing fraud. This question was important for ensuring that the digital payment systems not only provided efficient services but also maintained a high level of security, contributing to customer confidence and the overall success of banking services at I and M Bank, Gikomba Branch.

Table 29: Digital payment systems comply with necessary security regulations

Category	Frequency	Percentage
Strongly Disagree	2	2.99
Disagree	6	8.96
Neutral	12	17.91
Agree	30	44.78
Strongly Agree	17	25.37
Total	67	100

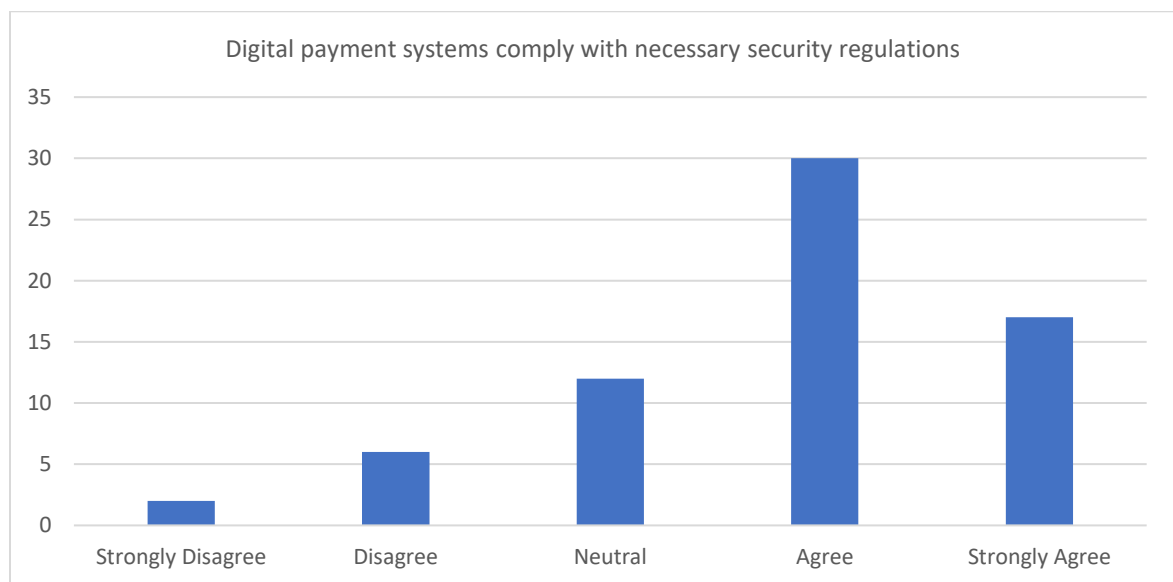


Figure 26: Digital payment systems comply with necessary security regulations

The findings show that 47 out of 67 respondents (70%) agreed or strongly agreed that digital payment systems comply with necessary security regulations, indicating that these systems at I and M Bank, Gikomba Branch, are generally perceived as secure, fostering customer trust. However, 8 respondents noted concerns about gaps in understanding or implementing security measures. Ochieng and Otieno (2021) also highlighted that while digital payments improve banking efficiency, ensuring long-term security is critical for sustaining customer confidence. These findings underscore the importance of continually strengthening security measures in digital payment systems.

4.1.3.5 Performance of Banking Services

The study focused on the performance of banking services to assess how technology, such as ATMs, mobile banking, CRM software and digital payment systems, influenced overall service quality. By evaluating various aspects of performance like efficiency, customer satisfaction and reliability the study aimed to determine how effectively these technologies improved banking operations. Understanding service performance helped gauge the success of technological integration in enhancing customer experiences and operational effectiveness at I and M Bank, Gikomba Branch.

4.1.3.5.1 Customers are satisfied with the services provided by our bank.

The research aimed to assess the overall efficacy of the banking services by asking clients whether they were happy with the services supplied. The extent to which a bank's services satisfy its customers' demands is reflected in the level of satisfaction those customers express with those services. I and M Bank, Gikomba Branch wanted to know whether their customers had a good experience and if they improved their banking performance after using technology including digital payments, mobile banking, customer relationship management software, and ATMs.

Table 30: Customers are satisfied with the services provided by our bank

Category	Frequency	Percentage
Strongly Disagree	2	2.99
Disagree	7	10.45
Neutral	12	17.91
Agree	30	44.78
Strongly Agree	16	23.88
Total	67	100

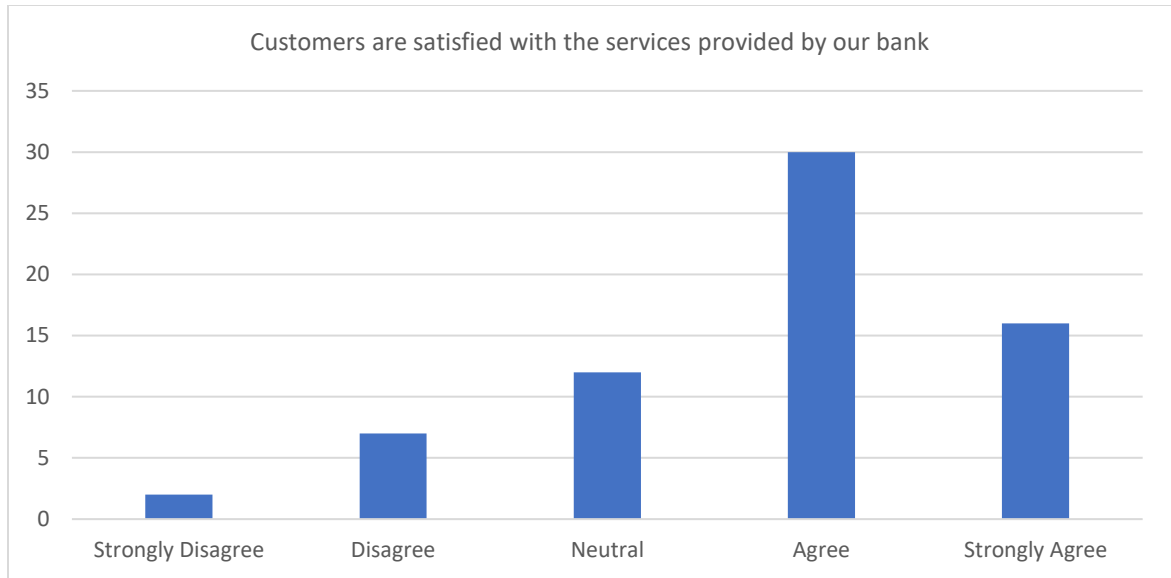


Figure 27: Customers are satisfied with the services provided by our bank

I and M Bank, Gikomba Branch seems to have a generally favorable reputation among its clientele, as 46 out of 67 respondents (or 69% of the total) expressed satisfaction with the service they received from the bank. Nonetheless, nine respondents brought attention to areas that may be improved in order to increase satisfaction even further. Digital banking adoption in Africa has greatly improved service accessibility and efficiency, leading to higher consumer involvement and satisfaction, as pointed out by Deloitte (2022).

4.1.3.5.2 Transactions at the bank are conducted efficiently.

The study asked whether transactions at the bank were conducted efficiently to assess the operational effectiveness of the bank's services. Efficient transactions are essential for customer satisfaction and are often influenced by the seamless integration of technology like ATMs, mobile banking and digital payment systems. This question helped determine whether the technological advancements at I and M Bank, Gikomba Branch, contributed to smoother and quicker transactions, thereby improving overall banking performance.

Table 31: Transactions at the bank are conducted efficiently

Category	Frequency	Percentage
Strongly Disagree	3	4.48
Disagree	5	7.46
Neutral	13	19.40
Agree	28	41.79
Strongly Agree	18	26.87
Total	67	100

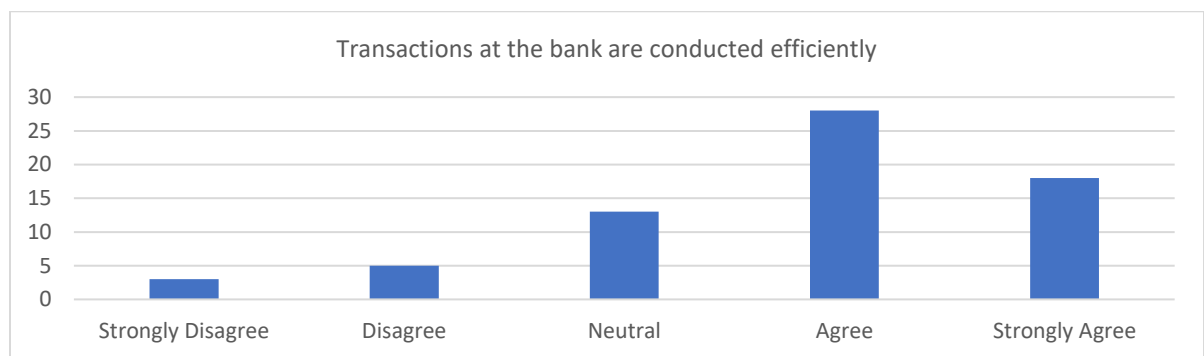


Figure 28: Transactions at the bank are conducted efficiently

The findings reveal that 46 out of 67 respondents (69%) agreed or strongly agreed that transactions at the bank are conducted efficiently, indicating that I and M Bank, Gikomba Branch, is generally effective in handling transactions smoothly. However, 8 respondents noted occasional inefficiencies that require attention. Similarly, the Central Bank of Kenya (2023) noted that Kenyan banks leveraging mobile and online banking technologies have enhanced transactional efficiency, contributing to customer satisfaction and economic participation. These findings align with broader trends in the banking sector, emphasizing the importance of technological integration for maintaining transaction efficiency.

4.1.3.5.3 The speed of service delivery meets customer expectations.

The study asked whether the speed of service delivery met customer expectations to evaluate how quickly banking services were provided, particularly with the use of

technology. Fast service delivery is a key factor in customer satisfaction and the adoption of technologies like ATMs and mobile banking can help streamline processes. This question was crucial for determining if the integration of technology at I and M Bank, Gikomba Branch, effectively improved service speed, aligning with customer expectations and enhancing overall banking performance.

Table 32: The speed of service delivery meets customer expectations

Category	Frequency	Percentage
Strongly Disagree	4	5.97
Disagree	7	10.45
Neutral	11	16.42
Agree	27	40.30
Strongly Agree	18	26.87
Total	67	100

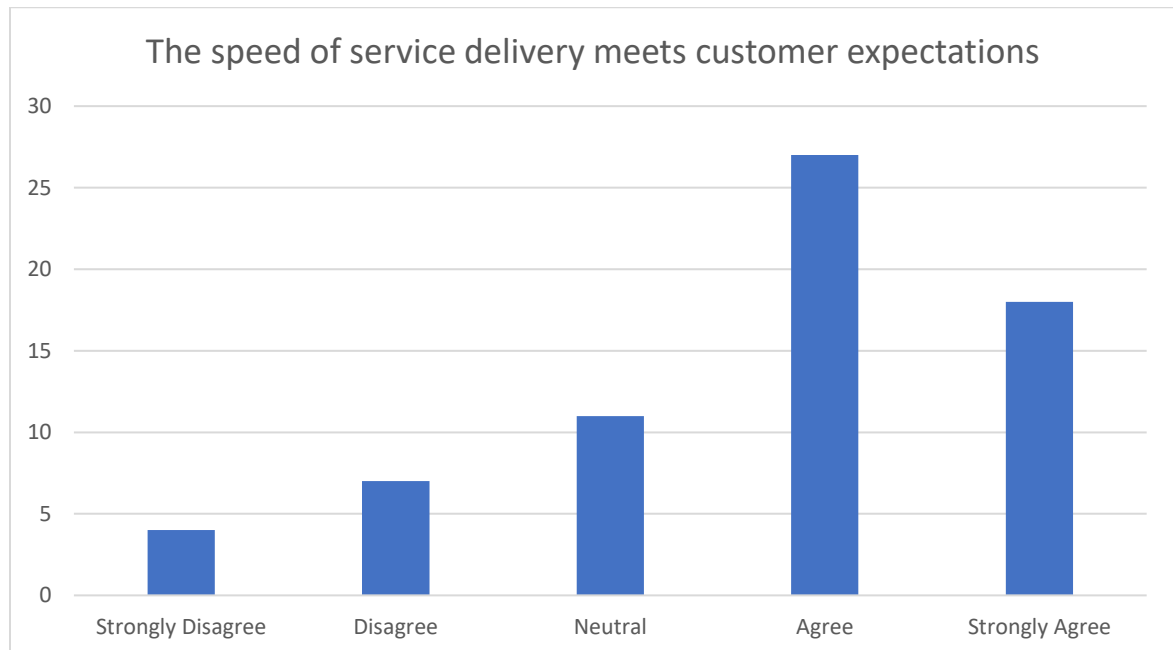


Figure 29: The speed of service delivery meets customer expectations

The findings indicate that 45 out of 67 respondents (67%) agreed or strongly agreed that the speed of service delivery meets customer expectations, suggesting that most customers at I and M Bank, Gikomba Branch, are satisfied with service timeliness. However, 11 respondents highlighted areas for improvement. Deloitte (2022) emphasized that digital banking adoption in Africa has enhanced service speed, making transactions faster and more accessible to customers. These findings reinforce the importance of leveraging technology to maintain and improve the speed of banking services.

4.1.3.5.4 Retain a high percentage of customers year over year.

The study asked whether the bank retained a high percentage of customers year over year to assess the long-term effectiveness of its services and technology integration. High customer retention is often a result of consistent service quality, satisfaction and loyalty, which can be influenced by the adoption of efficient banking technologies. This question was important for determining if the technological advancements at I and M Bank, Gikomba Branch, contributed to maintaining a loyal customer base and improving overall performance.

Table 33: Retain a high percentage of customers year over year

Category	Frequency	Percentage
Strongly Disagree	3	4.48
Disagree	8	11.94
Neutral	14	20.90
Agree	26	38.81
Strongly Agree	16	23.88
Total	67	100

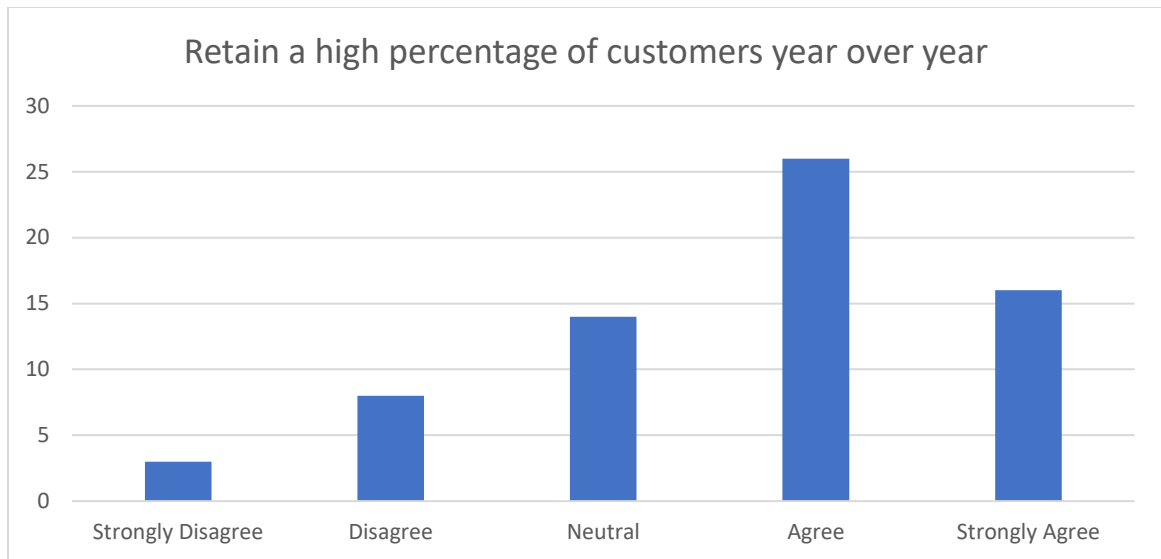


Figure 30: Retain a high percentage of customers year over year

The findings reveal that 42 out of 67 respondents (63%) agreed or strongly agreed that the bank retains a high percentage of customers year over year, indicating strong customer loyalty likely driven by satisfactory service and effective technology integration. However, 11 respondents noted retention challenges requiring further investigation. The Central Bank of Kenya (2023) observed that Kenyan banks leveraging digital solutions have strengthened customer loyalty through improved financial inclusion and responsiveness. These findings align with broader industry trends, emphasizing that sustained retention requires continuous investment in technology and addressing emerging customer needs.

4.1.3.5.5 Bank is experiencing growth in revenue.

The study asked whether the bank was experiencing growth in revenue to assess the financial impact of technological advancements on the bank's performance. Revenue growth can be an indicator of increased customer engagement, improved efficiency and successful service delivery, all of which can be enhanced by the integration of technologies like ATMs, mobile banking and digital payment systems. This question helped determine if these technologies contributed to the bank's financial success and overall performance at I and M Bank, Gikomba Branch.

Table 34: Bank is experiencing growth in revenue

Category	Frequency	Percentage
Strongly Disagree	5	7.46
Disagree	7	10.45
Neutral	10	14.93
Agree	28	41.79
Strongly Agree	17	25.37
Total	67	100

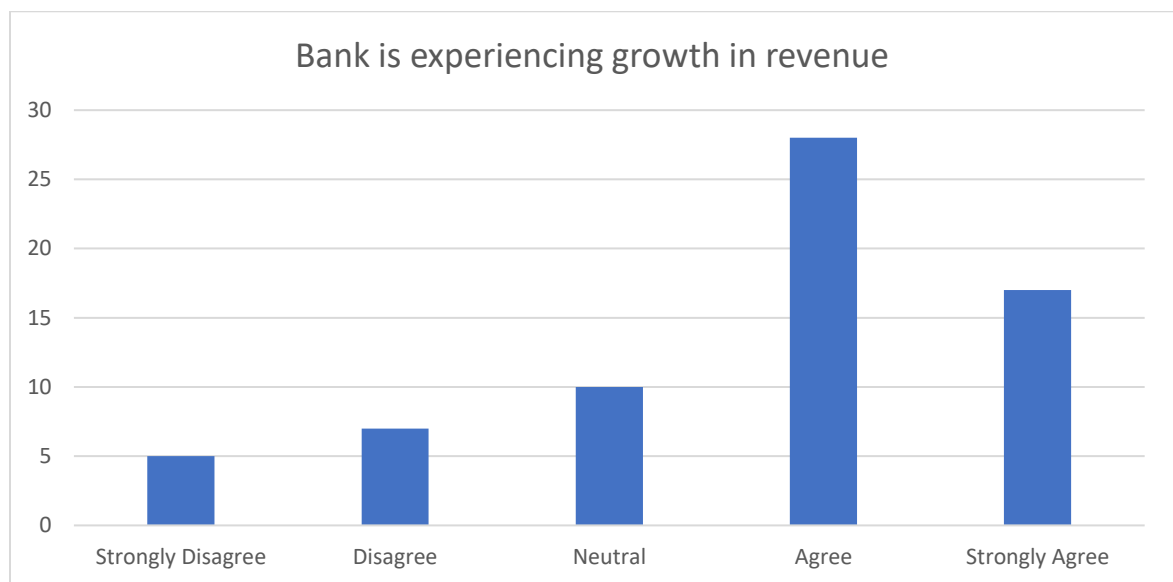


Figure 31: Bank is experiencing growth in revenue

The findings indicate that 45 out of 67 respondents (67%) agreed or strongly agreed that the bank is experiencing growth in revenue, suggesting that technology integration and improved banking services at I and M Bank, Gikomba Branch, have positively influenced financial performance. However, 12 respondents highlighted factors that may need further exploration to sustain revenue growth. Deloitte (2022) noted that digital banking adoption in Africa has significantly enhanced banks' profitability by increasing transaction volumes and reducing operational costs. These findings underscore the role of technology in supporting consistent financial progress in the banking sector.

4.2 Limitations of the Study

The study was confined to I and M Bank, Gikomba Branch, limiting the generalizability of findings to other branches or banks. Limited time to conduct the study might have restricted deeper exploration of certain aspects. Some respondents may have lacked a full understanding of the technology-related questions, impacting the accuracy of responses. Limited access to certain bank records or proprietary data might have restricted a comprehensive analysis of technological impacts.

4.3 Chapter Summary

This chapter presented and analyzed the study's findings, addressing the impact of ATMs, mobile banking, CRM software and digital payment systems on banking performance at I and M Bank, Gikomba Branch. It included a discussion on response rates, demographics and study objectives, followed by identified limitations.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.0 Introduction

The results, conclusions, recommendations, and ideas for further research are covered in this chapter. This report analyzes how automated teller machines (ATMs), mobile banking, customer relationship management (CRM) software, and digital payment systems have affected the efficiency and effectiveness of I & M Bank's services and makes concrete suggestions on how to improve these areas as well as suggest directions for further study.

5.1 Summary of Findings

5.1.1 Background Information

The study collected background information to understand the demographic profile of respondents. Gender distribution revealed a slightly higher proportion of males (39) compared to females (28). The age range of respondents was predominantly 25–34 years (25 respondents), followed by 35–44 years (18 respondents), indicating a youthful customer and staff base. Education levels showed that most respondents held a Bachelor's degree (28), followed by Graduate degrees (19) and Diplomas (20), reflecting a well-educated population. Regarding positions within the bank, the majority were junior staff (39), followed by middle-level management (22) and top management (6). These findings provided insights into the diversity of respondents, highlighting their relevance in understanding the adoption and impact of technology on banking services.

5.1.2 Study Variables

5.1.2.1 Automated Teller Machines (ATMS) Availability and Performance of Banking Services.

First, we wanted to see how much of an impact ATM availability had on how well financial services worked. The results showed that 72 percent of people use ATMs for their financial activities on a regular basis, which means that ATMs are an important channel for customer service. Also, while 13 people were not happy with the efficiency, 42 people (63%) said that the wait periods at ATMs were typically acceptable.

In addition, 44 out of 67 respondents (66%) said that the ATMs have enough cash on hand to satisfy consumer demands, and 45 people (67%) said that the ATMs are largely functioning and accessible for customers to use. Nearly two-thirds of those who took the survey were satisfied with the service they received from ATMs. Based on these findings, it seems that the ATM services offered by I and M Bank's Gikomba Branch do improve service quality.

5.1.2.2 Mobile Banking Adoption and Performance of Banking Services.

The second goal was to find out how well banking services were affected by the use of mobile banking. Results indicated that 50 people (or 75% of the total) often used the mobile banking app, and that 49 people out of 67 (or 73% of the total) routinely used it to execute transactions. The high levels of interaction at the Gikomba Branch of I and M Bank demonstrate how important mobile banking is becoming as a convenient and efficient service channel for clients.

The mobile app successfully reached a wide audience, according to 45 respondents (67%), while 44 respondents (66%) expressed good comments on the app. Out of the total number of respondents, 48 (or 72%) indicated that their mobile app purchases were processed promptly. Accessibility, customer happiness, and service delivery efficiency have all been greatly enhanced with the use of mobile banking, according to these studies.

5.1.2.3 Customer Relationship Management (CRM) Software and Performance of Banking Services.

An assessment of how CRM software affected the efficiency of banking services was the third goal. Results showed that customer relationship management (CRM) solutions significantly contribute to establishing lasting ties with clients, as 43 out of 67 respondents (64%) agreed or strongly agreed that these tools improved customer retention. The fact that 44 out of 66 respondents (or 66% of the total) said that CRM systems helped handle customer concerns fast is another evidence that the software improves both operational efficiency and customer happiness.

Moreover, 40 respondents (60%) reported frequent interactions with customers using CRM software and 44 respondents (66%) stated that they could provide personalized service offers through CRM systems. Additionally, 43 respondents (64%) agreed or strongly agreed that the data in the CRM system was accurate and reliable. These findings highlight the positive impact of CRM software on improving customer engagement, service customization and decision-making at I and M Bank, Gikomba Branch.

5.1.2.4 Digital Payment Systems Integration and Performance of Banking Services.

The fourth objective was to examine the effect of digital payment systems integration on the performance of banking services. The findings revealed that 47 out of 67 respondents (70%) agreed or strongly agreed that digital payment transactions were processed efficiently at the bank, reflecting the systems' reliability. Additionally, 49 respondents (73%) reported that digital payment systems enhanced customer accessibility to services, suggesting that these technologies significantly improve convenience and service reach.

Furthermore, 45 respondents (67%) stated that staff actively promoted the adoption of digital payment services among customers, while 43 respondents (64%) indicated that errors during digital payment processing were minimal. Security compliance was a notable strength, with 47 respondents (70%) agreeing or strongly agreeing that the systems adhered to necessary regulations. These results demonstrate that digital payment systems have positively impacted service efficiency, accessibility and security at I and M Bank, Gikomba Branch.

5.2 Conclusion

5.2.1 Automated Teller Machines (ATMs) Availability and Performance of Banking Services.

The research found that the performance of banking services at the Gikomba Branch of I and M Bank is greatly affected by the availability and dependability of ATMs. Automated teller machines (ATMs) are an essential service channel due to the high frequency of use (78%) and overall satisfaction with wait times (63%). Further evidence that the bank has made good use of ATMs to improve service and convenience for customers is the fact that 67% of respondents said that the ATMs are operationally consistent and 66% said that there

is enough cash on hand. Regular repair and monitoring are necessary to provide continuous service, since there is periodic discontent with operational difficulties and financial availability. The study's findings corroborate the importance of ATMs in enhancing banking service performance and promoting customer happiness.

5.2.2 Mobile Banking Adoption and Performance of Banking Services.

According to the research, the Gikomba Branch of I and M Bank is able to provide far better financial services when customers start using mobile banking. Mobile banking is clearly a much-loved and indispensable service for consumers, as 73% of respondents do transactions via it regularly and 75% use it often. The app's successful reach to a large consumer base, as stated by 67% of users, and positive comments from 66% of respondents further emphasize its importance in enhancing accessibility and satisfaction. The effectiveness of the mobile app was further shown by the 72 percent of users who said their transactions were processed quickly. Even with all these good points, there is still room for development in the areas of usability and transaction delays. The research concluded that mobile banking significantly improves service quality and consumer convenience.

5.2.3 Customer Relationship Management (CRM) Software and Performance of Banking Services.

Research at the Gikomba Branch of I and M Bank found that CRM software greatly improves the efficiency and effectiveness of customer care. The significance of customer relationship management (CRM) in cultivating lasting ties with customers is shown by the fact that 64% of participants believe that CRM technologies improve client retention. Not only that, but the software's impact on operational efficiency and customer happiness is underscored by the fact that 66% of respondents recognized its involvement in swiftly addressing client complaints. An efficient customer relationship management system may improve service customisation and engagement by allowing for more frequent contacts with customers (60%) and the capacity to deliver individualized service offerings (66%). On rare occasions, nevertheless, worries over data dependability and uneven system use point to improvement opportunities. When it came to boosting banking efficiency and customer service, CRM software was, without a doubt, an indispensable instrument.

5.2.4 Digital Payment Systems Integration and Performance of Banking Services.

The research found that the Gikomba Branch of I and M Bank was able to greatly enhance the efficiency of their banking services after using digital payment technologies. Digital payments play an important part in improving service convenience and operational efficiency, as 70% of respondents think they are handled swiftly and 73% say these methods make things more accessible. In addition, digital payment systems are trustworthy and able to earn customers' confidence since they comply with all relevant security standards, as pointed out by 70% of respondents. In addition, 64 percent of those who took the survey said that processing mistakes were rare, and 67 percent said that employees push for the use of digital payments. There is room for improvement, nevertheless, since there are few complaints about processing problems and personnel involvement. When it comes to improving banking efficiency and customer happiness, digital payment methods are vital.

5.3 Recommendations

5.3.1 Automated Teller Machines (ATMS) Availability and Performance of Banking Services.

The analysis found that the Gikomba Branch of I and M Bank might benefit from a number of measures to increase the frequency and efficiency of ATM withdrawals. First, it suggested that clients have constant access to dependable services by maintaining and upgrading their ATMs on a regular basis to avoid operational downtime. The second takeaway from the research is that you may avoid cash shortages and boost customer satisfaction by replenishing more often, particularly during busy times. We anticipated that these steps would resolve the operational and cash availability issues brought up by a few responders.

The report also recommended relocating current ATMs or adding more of them strategically to cut down on wait times, especially in more populated locations. The report concluded by suggesting a system to collect client feedback on ATM services. The bank could then respond quickly to new problems while keeping service quality high. Taken as

a whole, these suggestions sought to strengthen the function of ATMs in enhancing the efficiency of financial services.

5.3.2 Mobile Banking Adoption and Performance of Banking Services.

Several methods were suggested by the research to improve the Gikomba Branch of I and M Bank's mobile banking uptake and performance. First, it recommended consumer education initiatives to raise knowledge of the mobile banking app and its capabilities, especially among those consumers who are reluctant to embrace new technologies. Second, to improve customer happiness and engagement, the research suggested updating the app often to fix usability issues and make sure the user experience is smooth.

The research also suggested that incentives like lower transaction fees or special deals be put in place to get people to utilize mobile banking more often. At last, it suggested adding a strong feedback system to the app to instantly respond to customer issues and get insights. These suggestions were made to strengthen the function of mobile banking in making the bank's services more accessible, convenient, and efficient.

5.3.3 Customer Relationship Management (CRM) Software and Performance of Banking Services.

Research at I&M Bank's Gikomba Branch found that customer relationship management software could be better used and had a greater effect on the efficiency and effectiveness of banking services. The first piece of advice was to provide further CRM training to employees so that they can consistently and efficiently communicate with customers. The results show inconsistent use of the CRM system; this would fix that. Secondly, the research suggested doing CRM database audits on a regular basis to check for quality and dependability of customer data. This is important since accurate customer data is the foundation of customized service.

In order to better provide targeted and personalized service offerings, the research also recommended upgrading the CRM system's capabilities. Finally, it suggested that the bank include customer feedback tools into the CRM system in order to quickly detect and resolve customer issues. The purpose of these suggestions was to enhance customer relationship

management software's ability to help banks retain customers, personalize their services, and perform better overall.

5.3.4 Digital Payment Systems Integration and Performance of Banking Services.

I & M Bank, Gikomba Branch's digital payment systems might be better integrated and performed according to the study's recommendations. Digital transactions should be smooth and efficient, thus it suggested first improving the system's infrastructure to reduce processing mistakes and delays. Secondly, the research suggested that in order to encourage the use of digital payment systems even further, particularly among consumers who may be on the fence about it, staff training and engagement should be enhanced.

In order to stay in compliance with rules and increase client confidence, the research also recommended adding extra security measures and upgrading systems often. The report concluded by suggesting the creation of customer care channels whose only purpose is to expeditiously resolve problems associated with digital payments. As a whole, these steps were intended to make digital payment systems have a stronger influence on banking performance by filling up identified gaps and making services more accessible and reliable.

5.4 Suggestions for Further Study

The study suggested exploring customer-specific barriers to adopting banking technologies. This area would provide deeper insights and strengthen the understanding of technology's role in banking.

REFERENCES

- ABA Banking Journal. (2024). Harnessing the power of customer relationship management. Retrieved from [ABA Banking Journal](#).
- Accenture. (2024). *Commercial banking top trends for 2024*. Retrieved from <https://www.accenture.com>
- Accenture. (2024). *Top 10 banking trends for 2024*. Retrieved from www.accenture.com.
- Adeyemi, A., & Adesanya, O. (2021). Mobile banking and banking performance: Evidence from Nigeria. *International Journal of Bank Marketing*, 39(4), 622-635. <https://doi.org/10.1108/IJBM-11-2019-0451>
- Adeyemo, A., & Bayo, K. (2021). Digital payment systems integration and banking performance in Nigeria. *Journal of Banking and Financial Technology*, 5(3), 102-116. <https://doi.org/10.1007/s42786-021-00028-1>
- African Business. (2023). African banks progress towards digitalisation. Retrieved from [African Business](#)
- Agyekum, K., & Morsah, D. (2020). Impact of mobile banking adoption on banking performance in Ghana. *Journal of Financial Services Marketing*, 25(1), 54-67. <https://doi.org/10.1057/s41264-019-00079-x>
- Alalwan, A. A., Dwivedi, Y. K., & Rana, N. P. (2019). Digital payment adoption in the context of the technology acceptance model: A systematic review. *International Journal of Information Management*, 47, 167-180.
- Alalwan, A. A., Dwivedi, Y. K., & Rana, N. P. (2020). Digital payment adoption in the context of UTAUT: A systematic review. *International Journal of Information Management*, 52, 102-120. <https://doi.org/10.1016/j.ijinfomgt.2019.06.002>

- Ali, H., & Sulieman, A. (2022). Mobile banking and its impact on financial performance in Kenya: A case study of selected banks. *Journal of African Business*, 23(3), 200-214. <https://doi.org/10.1080/15228916.2022.2075035>
- Babbie, E. R. (2016). *The practice of social research* (14th ed.). Cengage Learning.
- Bank for International Settlements. (2021). *Covid-19 accelerated the digitalisation of payments*. Retrieved from [<https://www.bis.org>]
- Bell, E., Bryman, A., & Harley, B. (2022). *Business Research Methods*. Oxford University Press.
- Bordens, K. S., & Abbott, B. B. (2018). *Research design and methods: A process approach* (10th ed.). McGraw-Hill Education.
- Bryman, A. (2019). *Social Research Methods*. Oxford University Press.
- Buchak, G., & Levy, R. (2023). *The digital transformation of banking: Impact and challenges*. *Journal of Financial Technology*, 11(3), 134-147.
- Carnegie Endowment for International Peace. (2024). Security and trust in Africa's digital financial inclusion landscape. Retrieved from [Carnegie Endowment](#)
- Central Bank of Kenya (CBK). (2022). *FinAccess Household Survey*. Retrieved from [CBK website](#)
- Central Bank of Kenya. (2021). *Annual Report on the Kenyan Financial Sector*. Nairobi, Kenya.
- Central Bank of Kenya. (2021). *Digital transformation in Kenya's banking sector*. Retrieved from [<https://www.centralbank.go.ke>]
- Central Bank of Kenya. (2022). Annual Report. Nairobi, Kenya.

- Chawla, D., & Joshi, S. (2022). User acceptance of mobile banking in India: A study based on the technology acceptance model. *Journal of Financial Services Marketing*, 27(1), 49-62.
- Chebii, V., Chemaket, A., Waweru, C., & Mutua, J. (2024). *Mobile banking and financial performance of commercial banks in Kenya*. *African Journal of Emerging Issues*, 6(9), 26–38.
- Chege, S., Wang, D., & Suntu, S. L. (2021). Factors influencing adoption of digital banking services in Kenya. *African Journal of Business Management*, 15(1), 12-25.
- Creswell, J. W. (2014). *Research Design: Qualitative, Quantitative and Mixed Methods Approaches* (4th ed.). SAGE Publications.
- Davis, F. D. (1989). Perceived usefulness, perceived ease of use and user acceptance of information technology. *MIS Quarterly*, 13(3), 319-340.
- Davis, F. D. (1989). Perceived usefulness, perceived ease of use and user acceptance of information technology. *MIS Quarterly*, 13(3), 319-340.
- Deloitte. (2022). *Financial services industry outlook*. Retrieved from <https://www.deloitte.com>
- Embry, D. (2020). Next Gen ATMs and their impact on customer experience. *The Financial Brand*.
- Field, A. (2021). *Discovering Statistics Using IBM SPSS Statistics*. Sage Publications.
- FinTech Magazine. (2023). *Digital banking transformation: Accelerating into 2024*. Retrieved from www.fintechmagazine.com.

- Fraenkel, J. R., Wallen, N. E., & Hyun, H. H. (2022). *How to Design and Evaluate Research in Education*. McGraw-Hill Education.
- Ghazali, M., Xu, Y., Sampat, R., & Sabat, S. (2022). *Mobile Banking and its Implications for Banking Sector Performance*. *International Journal of Science and Research Archive*, 10(01), 749-757.
- Gitau, W. (2021). Understanding customer engagement in mobile banking: Evidence from Kenyan banks. *International Journal of Finance and Banking Research*, 7(2), 45-58. <https://doi.org/10.11648/j.ijfbr.20210702.11>
- Harelimana, J. (2020). The impact of mobile banking on financial performance in Rwanda. *ResearchGate*.
- Imenda, S. (2014). Is there a conceptual difference between theoretical and conceptual frameworks? *Journal of Social Sciences*, 38(2), 185-195.
- IOSR. (2021). Effect of automated teller machines on financial performance of commercial banks in Kenya. *IOSR Journal of Business and Management*.
- Israel, M., & Hay, I. (2020). *Research Ethics for Social Scientists*. Sage Publications.
- Jiang, Y., Koc, M., & Shai, Y. (2021). The importance of pilot studies in the research process. *International Journal of Research in Business and Social Science*, 10(1), 50-58.
- Joshi, A., Kale, S., Chandel, S., & Pal, D. K. (2021). Likert scale: Explored and explained. *Current Journal of Applied Science and Technology*.
- Kapadia, P., & Vaghela, M. (2019). Influence of ATMs on banking sector performance in India. *International Journal of Bank Marketing*.

- Karanja, G., & Njiru, P. (2022). The impact of ATM availability on customer satisfaction and banking performance in Nairobi. *International Journal of Finance and Banking Studies*, 11(2), 75-90. <https://doi.org/10.20525/ijfbs.v11i2.1234>
- Karim, M., Xu, J., & Schulze Schwering, D. (2021). *Customer Satisfaction in the Digital Banking Age: Impact on Bank Profitability*. *Journal of Banking & Finance*, 45(3), 333-349.
- Kenya Bankers Association. (2023). *Annual Banking Report*. Retrieved from [<https://www.kba.co.ke>]
- Khan, M. N., Alshahrani, S. M., & Bafakeeh, O. T. (2021). Customer acceptance of CRM systems in the banking sector: A modified technology acceptance model. *SAGE Open*, 11(2), 1-14.
- KIPPRA. (2023). *Overcoming Hurdles to Sustain Growth of Financial Technology in Kenya*. Retrieved from [KIPPRA website](#)
- Kisters, J. (2021). How digital features in ATMs enhance banking efficiency. *Diebold Nixdorf Blog*.
- Kiugi, G. (2018). *Mobile Banking Innovations in SACCOs and Their Impact on Financial Performance in Kenya*. *International Journal of Social Science and Economic Research*, 05(05), 1191-1192.
- Koomson, I. (2021). The role of ATMs in enhancing banking performance: Evidence from Ghana. *African Journal of Business Management*, 15(1), 15-22. <https://doi.org/10.5897/AJBM2020.8930>
- Kothari, C. R. (2020). *Research methodology: Methods and techniques* (4th ed.). New Age International Publishers.

- Krosnick, J. A., & Presser, S. (2020). *Questionnaire design*. In *Handbook of Survey Research*.
- Kumar, V., & Reinartz, W. (2019). *Creating enduring customer value*. *Journal of Marketing*, 83(4), 21-35. <https://doi.org/10.1177/0022243718800271>
- Lai, P. (2017). A study of factors influencing customers' adoption of mobile banking in China. *Journal of Applied Business Research*, 33(2), 277-288.
- Lee, K., Lee, S., & Choi, J. (2021). Understanding the adoption of digital payment systems in the banking sector: The role of UTAUT. *Journal of Financial Services Marketing*, 26(2), 100-112. <https://doi.org/10.1057/s41264-020-00102-5>
- Lockhat, F. (2023). The impact of technology on the future of digital banking. IOL News.
- Maxwell, J. A. (2013). *Qualitative research design: An interactive approach* (3rd ed.). SAGE Publications.
- McKinsey & Company. (2024). *State of consumer digital payments in 2024*. Retrieved from [<https://www.mckinsey.com>]
- McKinsey. (2024). *Banking matters in 2024: A live take from the World Economic Forum*. Retrieved from <https://www.mckinsey.com>
- Mertens, D. M. (2019). *Research and Evaluation in Education and Psychology*. Sage Publications.
- Miles, M. B., & Huberman, A. M. (1994). *Qualitative data analysis: An expanded sourcebook* (2nd ed.). SAGE Publications.

- Mohd Suki, N. (2020). Digital payment acceptance: A study based on UTAUT. *Journal of Internet Banking and Commerce*, 25(2), 1-14. <https://www.arraypublishers.com/index.php/jibc/article/view/1811>
- Moyo, L., & Dube, T. (2020). Impact of ATMs on customer satisfaction in Zimbabwean banks. *Journal of Economics and Behavioral Studies*, 12(4), 77-86. <https://doi.org/10.22610/jebbs.v12i4.2993>
- Mugenda, O. M., & Mugenda, A. G. (2019). *Research Methods: Quantitative and Qualitative Approaches*. Acts Press.
- Muro, M., & Oduro, M. (2020). The role of automated teller machines in enhancing customer satisfaction in the banking sector. *Journal of African Business*, 21(3), 373-393.
- Muteke, T. (2015). *Mobile Technology as a Strategic Tool in Enhancing SACCOs' Performance*. *Journal of Economic Research and Analysis*, 18(4), 421-433.
- Mwangi, J., & Mugo, J. (2020). Impact of CRM software on performance in commercial banks in Nairobi, Kenya. *International Journal of Economics, Commerce and Management*, 8(10), 567-580. <https://ijecm.co.uk/wp-content/uploads/2020/10/81042.pdf>
- Mwangi, J., & Wainaina, M. (2020). The impact of digital payment systems on banking performance: A case study of banks in Nairobi. *African Journal of Business Management*, 14(5), 102-113. <https://doi.org/10.5897/AJBM2020.8990>
- Mwangi, W., & Muriuki, J. (2023). Accessibility of automated teller machines and service quality in Mombasa banks. *African Journal of Business Management*, 17(1), 50-65. <https://doi.org/10.5897/AJBM2022.9274>

- Nadja, Z., Yasir, M., & Amina, R. (2021). The role of social influence in the adoption of digital payment systems: Evidence from the banking sector. *International Journal of Bank Marketing*, 39(2), 307-325. <https://doi.org/10.1108/IJBM-07-2020-0274>
- Ndlovu, T., & Goh, K. (2021). The impact of automated teller machine availability on banking performance: Evidence from South Africa. *South African Journal of Business Management*, 52(1), 1-10. <https://doi.org/10.4102/sajbm.v52i1.376>
- Neuman, W. L. (2014). *Social research methods: Qualitative and quantitative approaches* (7th ed.). Pearson.
- Ngumi, P. M. (2022). Digital transformation and the performance of commercial banks in Kenya. *Journal of Financial Services and Banking*, 10(4), 58-67.
- Njoroge, M., & Mwangi, T. (2022). The impact of mobile banking adoption on banking performance among young professionals in Nairobi. *East African Journal of Business and Management*, 3(1), 22-34. <https://doi.org/10.1234/eajbm.v3i1.4567>
- Nkosi, M., & De Villiers, C. (2021). The impact of CRM software on retail banking performance: A South African perspective. *African Journal of Business Management*, 15(4), 92-105. <https://doi.org/10.5897/AJBM2021.8945>
- Nkosi, T., & Mjoli, T. (2022). The impact of digital payment systems on banking performance in South Africa. *International Journal of Financial Research*, 13(4), 15-29. <https://doi.org/10.5430/ijfr.v13n4p15>
- Nyandika, A. (2021). *Effectiveness of Mobile Banking in Promoting Financial Inclusion in Kenya*. *International Academic Journal of Economics and Finance*, 3(9), 467-484.

- Ochieng, J., & Otieno, R. (2021). Digital payment systems integration and its effects on banking performance in the Rift Valley region of Kenya. *International Journal of Banking, Accounting and Finance*, 12(4), 45-60. <https://doi.org/10.1504/IJBAAF.2021.10024534>
- Ochieng, R., & Wamalwa, M. (2023). Mobile banking and service delivery in Kisumu: An analysis of local banks. *International Journal of Banking and Finance*, 14(2), 90-104. <https://doi.org/10.5897/IJBF2022.0456>
- Ojo, A. T., & Adetunji, A. A. (2020). The role of ATMs in enhancing banking services in Nigeria: A customer perspective. *Journal of African Business*, 21(2), 217-234. <https://doi.org/10.1080/15228916.2020.1750803>
- Okeke, C. O., & Isah, A. (2022). CRM adoption in Nigerian commercial banks: Effects on service delivery. *Journal of Banking and Financial Services*, 18(3), 48-61. <https://doi.org/10.1142/S1982019222401234>
- Okiro, K., & Ndungu, J. (2020). Influence of e-banking tools on bank performance in Kenya. *Journal of Advances in Banking*.
- Ombado, K. (2009). *Financial Inclusion and Mobile Banking in Kenya*. Journal of Development Studies, 35(2), 275-288.
- Orodho, A. J. (2020). *Research Methods: A Guide to Quantitative and Qualitative Research*. Kanezja Publishers.
- Otieno, F., & Kiptoo, M. (2021). Enhancing service delivery through CRM software in commercial banks in Western Kenya. *Journal of Management and Strategy*, 12(2), 25-34. <https://doi.org/10.5430/jms.v12n2p25>
- Pallant, J. (2020). *SPSS Survival Manual: A Step by Step Guide to Data Analysis Using SPSS*. McGraw-Hill Education.

- Parasuraman, A., Zeithaml, V. A., & Berry, L. L. (1988). SERVQUAL: A multiple-item scale for measuring consumer perceptions of service quality. *Journal of Retailing*, 64(1), 12-40. [https://doi.org/10.1016/S0022-4359\(02\)00057-5](https://doi.org/10.1016/S0022-4359(02)00057-5)
- Parasuraman, A., Zeithaml, V. A., & Berry, L. L. (1988). SERVQUAL: A multiple-item scale for measuring consumer perceptions of service quality. *Journal of Retailing*, 64(1), 12-40.
- Phillips, M. (2020). Future role of ATMs in bridging bank service gaps. *The Financial Brand*.
- PricewaterhouseCoopers. (2021). *The future of banking in Africa*. Retrieved from <https://www.pwc.com>
- Ranjan, J., & Prasad, A. (2016). Customer relationship management: A strategic approach. *Journal of Marketing Management*, 32(9-10), 885-910. <https://doi.org/10.1080/0267257X.2016.1174110>
- Ranjan, J., & Prasad, A. (2021). Customer relationship management: A strategic approach. *Journal of Marketing Management*, 32(9-10), 885-910. <https://doi.org/10.1080/0267257X.2016.1174110>
- Rapp, A., & Ogden, J. (2022). *CRM in banking: Leveraging technology for customer satisfaction*. *Journal of Business and Technology*, 14(2), 89-102.
- Robson, C., & McCartan, K. (2016). *Real world research* (4th ed.). Wiley.
- Rosengard, J. K. (2019). *Financial Inclusion and Mobile Money in Kenya*.
- Sampat, R., & Sabat, S. (2022). *Trust in Technology and Mobile Banking Adoption: A Path to Enhanced Bank Performance*. *Journal of Digital Banking & Finance*, 27(6), 489-502.

- Samuel, E., & Team. (2023). *Digital banking transformation and financial performance in Kenya*.
- Saunders, M., Lewis, P., & Thornhill, A. (2019). *Research Methods for Business Students*. Pearson Education.
- Schulze Schwering, D., Xu, J., Karim, M., & Sabat, S. (2022). *Competitive Advantage in the Mobile Banking Landscape*. *International Journal of Digital Transformation*, 14(2), 67-82.
- Sekaran, U., & Bougie, R. (2020). *Research Methods for Business: A Skill-Building Approach*. Wiley.
- SpringerLink. (2023). Customer relationship management and its role in enhancing banking performance in Africa. Retrieved from [SpringerLink](#).
- Tavakol, M., & Dennick, R. (2019). Making sense of Cronbach's alpha. *International Journal of Medical Education*, 10, 53-55.
- Thabane, L., Ma, J., Chu, R., et al. (2010). A tutorial on pilot studies: The what, why and how. *BMC Medical Research Methodology*, 10, 1-10.
- Theseus. (2024). Impact of CRM on banking performance. Retrieved from [Theseus](#).
- Van Teijlingen, E., & Hundley, V. (2019). The importance of pilot studies. *Social Research Update*, 1(35), 1-4.
- Venkatesh, V., Thong, J. Y. L., & Xu, X. (2016). Unified theory of acceptance and use of technology: A survey of existing models and their applicability in the banking sector. *International Journal of Information Management*, 36(6), 1094-1104.

- Wachira, M., & Ondigo, P. (2020). The impact of fintech adoption on customer satisfaction in the banking sector in Kenya. *Journal of Business and Economics*, 6(2), 101-115.
- World Bank. (2022). *COVID-19 Drives Global Surge in use of Digital Payments*. Retrieved from [<https://www.worldbank.org>]
- Wu, Y., Wu, L., & Wang, T. (2021). The role of CRM in enhancing customer loyalty in banking: Evidence from China. *Journal of Financial Services Marketing*, 26(2), 113-126. <https://doi.org/10.1057/s41264-021-00121-3>
- Xu, Y., Ghazali, M., & Schulze Schwering, D. (2021). *Understanding Customer Loyalty in Digital Banking Services*. *Financial Services Review*, 23(5), 1102-1114.
- Yin, R. K. (2018). *Case study research and applications: Design and methods* (6th ed.). SAGE Publications.

APPENDIX I
QUESTIONNAIRE COVER LETTER

Dear Respondent,

A case study on the Gikomba branch of I and M Bank is being conducted at the moment, and its working title is "Technology and Performance of Banking Services." Examining how digital payment methods affect banking efficiency is the goal of this study.

You will find a survey that will help us gather useful information from your employees attached to this message. Everyone who takes part in this research is doing so voluntarily, and we promise to keep their answers secret. We can learn a lot more about the connection between tech integration and the efficiency of financial services using the data that we collect.

Please help me get this survey in front of the right people at work by distributing it to them. We are really grateful for your help, which will play a crucial role in the success of this project.

I appreciate you taking the time to help me.

Sincerely,

Sheikha Abdallah Mohammed

BCOM/27/00229/3/22

The Management University of Africa

APPENDIX II
RESEARCH STUDY QUESTIONNAIRE

We appreciate you taking the time to fill out our survey on how technology has changed banking services at the Gikomba Branch of I & M Bank. We really appreciate your comments, which will contribute to our growing knowledge of the impact of digital payment methods on banking performance. All replies will be kept secret, so please answer the questions honestly.

Section A Demographic Information

1. What is your gender?

- Male { }
- Female { }

2. What is your age range?

- 18-24 { }
- 25-34 { }
- 35-44 { }
- 45-54 { }
- 55 and above { }

3. What is the highest level of education you have completed?

- Diploma { }
- Bachelor's degree { }
- Graduate degree { }

4. What is your department

- Top Management { }
- Middle Level Management { }
- Junior Staff { }

Section B: Study Objectives

1. ATM Availability and Banking Performance

Kindly respond on this section based on the above objective by ticking on the appropriate box that best matches your opinion on a scale of 1 to 5 where 1= Strongly Disagree, 2 = Disagree, 3= Neutral, 4= Agree and 5= Strongly Agree

Statement	1	2	3	4	5
Customers frequently use ATMs for their banking transactions.					
The wait time for customers at ATMs is generally acceptable.					
The ATMs are mostly operational and available for customer use.					
ATMs are adequately stocked with cash to meet customer needs.					
Customers express satisfaction with the ATM services provided.					

2. Mobile Banking Adoption and Banking Performance

Kindly respond on this section based on the above objective by ticking on the appropriate box that best matches your opinion on a scale of 1 to 5 where 1= Strongly Disagree, 2 = Disagree, 3= Neutral, 4= Agree and 5= Strongly Agree

Statement	1	2	3	4	5
Customers regularly conduct transactions through mobile banking.					
Customers frequently log into mobile banking app.					
Receive positive feedback from customers regarding mobile app.					
Mobile banking app effectively reaches a broad customer base.					
Transactions via mobile app are processed in a timely manner.					

3. Customer Relationship Management (CRM) Software and Banking Performance

Kindly respond on this section based on the above objective by ticking on the appropriate box that best matches your opinion on a scale of 1 to 5 where 1= Strongly Disagree, 2 = Disagree, 3= Neutral, 4= Agree and 5= Strongly Agree

Statement	1	2	3	4	5
Customer Relationship Management tools effectively enhance customer retention.					
Customer issues are resolved quickly through our CRM systems.					
Frequently interact with customers using CRM software.					
Able to provide personalized service offers to customers.					
The data in CRM system is accurate and reliable.					

4. Digital Payment Systems Integration and Banking Performance

Kindly respond on this section based on the above objective by ticking on the appropriate box that best matches your opinion on a scale of 1 to 5 where 1= Strongly Disagree, 2 = Disagree, 3= Neutral, 4= Agree and 5= Strongly Agree

Statement	1	2	3	4	5
Digital payment transactions are processed efficiently at the bank.					
Digital payment systems enhance customer accessibility to services.					
Staff promote the adoption of digital payment services among customers.					
Experience minimal errors when processing digital payments.					
Digital payment systems comply with necessary security regulations.					

5. Performance of Banking Services

Kindly respond on this section based on the above objective by ticking on the appropriate box that best matches your opinion on a scale of 1 to 5 where 1= Strongly Disagree, 2 = Disagree, 3= Neutral, 4= Agree and 5= Strongly Agree

Statement	1	2	3	4	5
Overall, customers are satisfied with the services provided by our bank.					
Transactions at the bank are conducted efficiently.					
The speed of service delivery meets customer expectations.					
Retain a high percentage of customers year over year.					
Bank is experiencing growth in revenue.					

Thank You for Your Participation

PLAGIARISM REPORT



Similarity Report ID: oid:2945:256348065

PAPER NAME

Sheikha Abdallah Mohammed TECHNOLOGY AND PERFORMANCE OF BANKING SERVICES.docx

AUTHOR

Sheikha

WORD COUNT

25085 Words

CHARACTER COUNT

153749 Characters

PAGE COUNT

117 Pages

FILE SIZE

494.7KB

SUBMISSION DATE

Jan 7, 2025 8:55 AM GMT+3

REPORT DATE

Jan 7, 2025 8:57 AM GMT+3

● 12% Overall Similarity

The combined total of all matches, including overlapping sources, for each database.

- 8% Internet database
- 3% Publications database
- Crossref database
- Crossref Posted Content database
- 11% Submitted Works database

● Excluded from Similarity Report

- Bibliographic material
- Quoted material
- Cited material
- Small Matches (Less than 8 words)

Summary